					ST DEPARTMENT DIVISION O		URAL RES				AMENI	FC DED REPOR	RM 3	
		AF	PPLICATION FO	OR PERI	MIT TO DRILL					1. WELL NAME and N	JMBER NBU 102	2-31 1BS		
2. TYPE O	F WORK						,			3. FIELD OR WILDCAT	г			
4. TYPE O	F WELL	DRILL NEW WELL	REENTER	P&A WEL	LL DEEPEN	WELL)			5. UNIT or COMMUNIT	NATURAL		ENT NAM	AF.
		G	as Well Co	albed Me	ethane Well: NO						NATURAL		LIVI IVAIV	"-
	OF OPERATOR		KERR-MCGEE OIL	& GAS O	NSHORE, L.P.					7. OPERATOR PHONE	720 92	9-6515		
8. ADDRE	SS OF OPERAT	OR	P.O. Box 173779	, Denver,	r, CO, 80217					9. OPERATOR E-MAIL julie.ja		anadarko	.com	
	AL LEASE NUM _, INDIAN, OR S				MINERAL OWNERS EDERAL IND	SHIP DIAN (STATE () FEE(12. SURFACE OWNERS FEDERAL INI	SHIP DIAN 🛑	STATE	(F	EE 💮
13. NAME	OF SURFACE	OWNER (if box 12	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNER	R E-MAIL	(if box 12	! = 'fee')	
17. INDIA	N ALLOTTEE O	R TRIBE NAME			INTEND TO COMM		RODUCTION	I FROM		19. SLANT				
(if box 12	! = 'INDIAN')				TIPLE FORMATION		ing Applicati	on) NO 🤅)	VERTICAL DIF	RECTIONA	AL 📵 H	HORIZONT	TAL 🔵
20. LOC	ATION OF WELL	-		FOOTAG	GES	QTF	R-QTR	SECT	ION	TOWNSHIP	R/	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACE		208	6 FSL 59	97 FWL	NV	NSW	3		10.0 S	22	2.0 E		S
Top of U	ppermost Proc	lucing Zone	264	4 FSL 66	65 FWL	NV	WSW	3		10.0 S	22	2.0 E		S
At Total	Depth		264	4 FSL 66	65 FWL	NV	WSW	3		10.0 S	22	2.0 E		S
21. COUN	ITY	UINTAH		22. D	DISTANCE TO NEA	REST LE 197		eet)		23. NUMBER OF ACRE	ES IN DRI 10-		IT	
					DISTANCE TO NEA plied For Drilling o	or Compl	leted)	POOL		26. PROPOSED DEPTI		TVD: 100	33	
27. ELEV	ATION - GROUN	ID LEVEL		28. B	BOND NUMBER	56	1			29. SOURCE OF DRIL				
		5121				WYB00	00291			WATER RIGHTS APPR	OVAL NU 43-8		PPLICAB	LE
					Hole, Casing									
String	Hole Size	Casing Size	0 - 2400	Weight			Max Mu			Cement		Sacks	Yield	Weight
Surf	11	8.625	0 - 2400	28.0	J-55 LT	aC .	0.	.2		Type V Class G		180 270	1.15	15.8 15.8
Prod	7.875	4.5	0 - 10093	11.6	P-110 L	T&C	13	.0	Pre	mium Lite High Stre	ngth	300	3.38	12.0
										50/50 Poz		1480	1.31	14.3
					A	TTACH	MENTS					1		
	VEF	RIFY THE FOLLO	WING ARE AT	ACHED	IN ACCORDAN	ICE WITI	H THE UTA	AH OIL AN	ID GAS	CONSERVATION G	ENERA	L RULES		
✓ w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR	ENGINEER		СОМ	PLETE DRII	LLING PI	_AN				
AF	FIDAVIT OF STA	ATUS OF SURFACE	OWNER AGREEM	IENT (IF F	FEE SURFACE)		FORM	1 5. IF OPER	RATOR I	S OTHER THAN THE LE	EASE OW	NER		
I DII	RECTIONAL SU	RVEY PLAN (IF DIR	ECTIONALLY OF	HORIZO	NTALLY DRILLED)	торо	GRAPHICA	L MAP					
NAME G	na Becker			TITLE	E Regulatory Analys	st II			PHON	E 720 929-6086				
SIGNATU	IRE			DATE	E 07/06/2012				EMAIL	gina.becker@anadark	o.com			
	BER ASSIGNED 047529440			APPR	ROVAL				Bro	oogill				
									Perm	nit Manager				

NBU 1022-3L Pad Drilling Program

1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3L1BS

Surface: 2086 FSL / 597 FWL NWSW BHL: 2644 FSL / 665 FWL NWSW

Section 3 T10S R22E

Unitah County, Utah Mineral Lease: UTU-01191

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,257'	
Birds Nest	1,470'	Water
Mahogany	1,953'	Water
Wasatch	4,324'	Gas
Mesaverde	6,702'	Gas
Sego	8,880'	Gas
Castlegate	8,996'	Gas
Blackhawk	9,433'	Gas
TVD	10,033'	
TD	10,093'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. Proposed Casing & Cementing Program:

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program:</u>

Please refer to the attached Drilling Program

NBU 1022-3L Pad Drilling Program 2 of 7

7. Abnormal Conditions:

Maximum anticipated bottom hole pressure calculated at 6,622 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,460 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

2/15/2012

NBU 1022-3L Pad Drilling Program
3 of 7

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

2/15/2012

NBU 1022-3L Pad Drilling Program
4 of 7

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP February 15, 2012 DATE NBU 1022-3L1BS WELL NAME TD 10,033' TVD 10,093' MD **FIELD** Natural Buttes **COUNTY Uintah** STATE Utah FINISHED ELEVATION 5121 SURFACE LOCATION NWSW 2086 FSL 597 FWL Sec 3 T 10S R 22E Latitude: 39.976502 Longitude: -109.433326 NAD 83 BTM HOLE LOCATION NWSW 2644 FSL 665 FWL Sec 3 T 10S R 22E Latitude: 39.978031 Longitude: -109.433104 NAD 83 OBJECTIVE ZONE(S) BLACKHAWK (Part of the Mesaverde Group) ADDITIONAL INFO Regulatory Agencies: BLM (Minerals), BLM (Surface), UDOGM Tri-County Health Dept. **GEOLOGICAL MECHANICAL FORMATION** HOLE **CASING** MUD LOGS **TOPS DEPTH** SIZE SIZE WEIGHT 40' 14" 12-1/4 8-5/8", 28#, IJ-55, LTC Air mist 200' All water flows encountered while drilling will be reported to the appropriate agencies. 11.00' 8-5/8", 28#, IJ-55, LTC Air mist Green River @ 1,257 Top of Birds Nest @ 1,470 Mahogany @ 1,953 Preset f/ GL @ 2,400' Note: 11" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the acutal depth of the loss zone. Wasatch @ 4,324 Mud logging program TBD 4-1/2" 11.6# Cased hole logging program from TD - surf csg 7-7/8" Water / Fresh HCP-110 Water Mud Ultra DQX/LTC csg 8.3-13.0 ppg Sego @ 6,702' TVD Castlegate @ 8,880' TVD 8,996' TVD Blackhawk @ Max anticipated Mud required 10,033' TVD 13.0 ppg TD@ 10,093' MD



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM	<u>1</u>								DESIGN F	ACTORS	
_										LTC	DQX
	SIZE	INT	ERVA		WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	C	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,400	28.00	IJ-55	LTC	2.24	1.67	5.91	N/A
								10,690	8,650	279,000	367,174
PRODUCTION	4-1/2"	0	to	5,000	11.60	HCP-110	DQX	1.19	1.28		3.91
	4-1/2"	5,000	to	10,093'	11.60	HCP-110	LTC	1.19	1.28	5.89	

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water	to surface, op	tion 2 will b	e utilized	
Option 2 LEAD	1,900'	65/35 Poz + 6% Gel + 10 pps gilsonite	180	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	3,823'	Premium Lite II +0.25 pps	300	35%	12.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,270'	50/50 Poz/G + 10% salt + 2% gel	1,480	35%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

 DRILLING ENGINEER:
 DATE:

 Nick Spence / Danny Showers / Chad Loesel
 DATE:

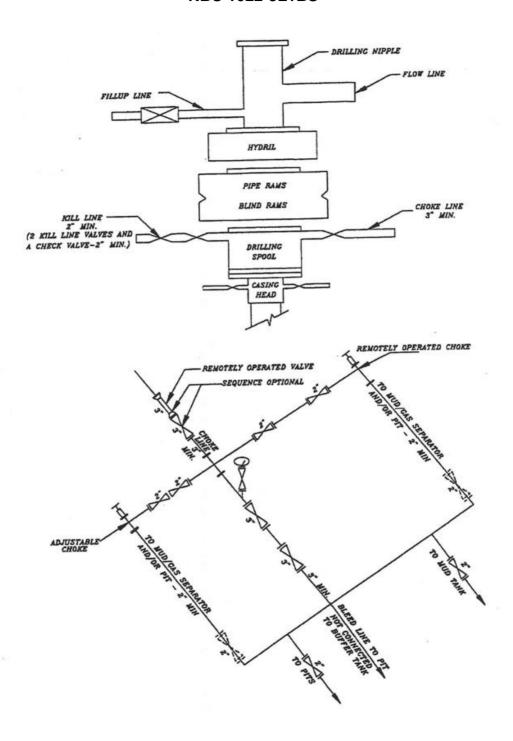
 DRILLING SUPERINTENDENT:
 DATE:

Kenny Gathings / Lovel Young

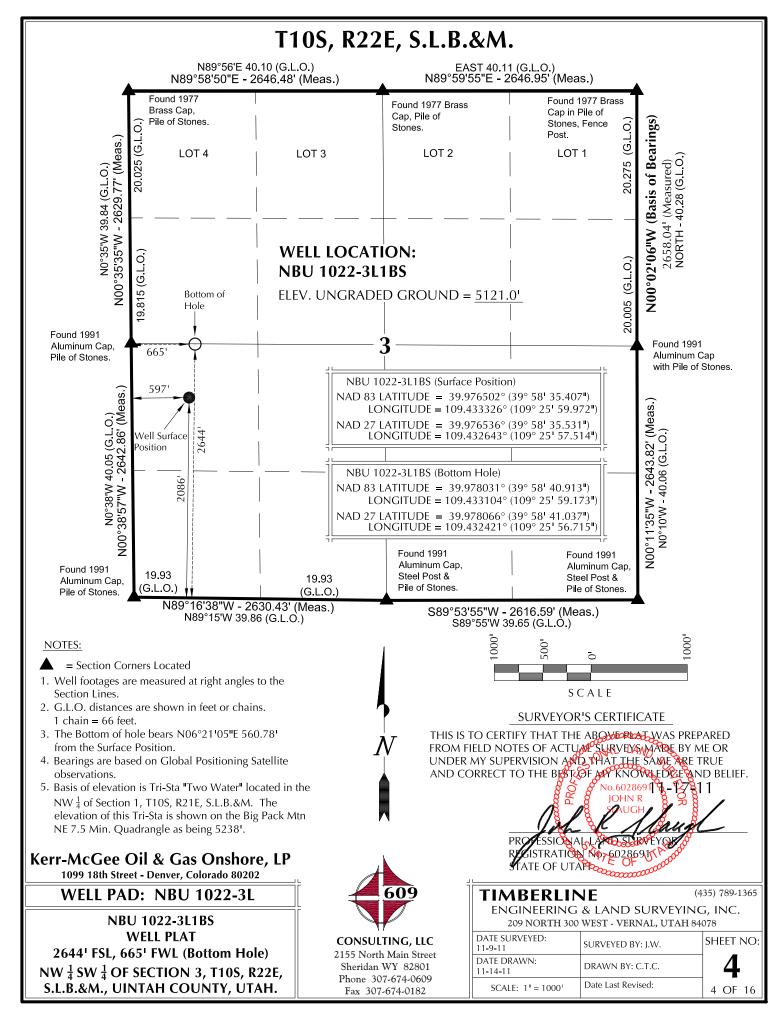
NBU 1022-3L Pad- Directional Drilling Blackhawk Program (2 wells) Approved by Drilling- 021512.xlsx

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A NBU 1022-3L1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

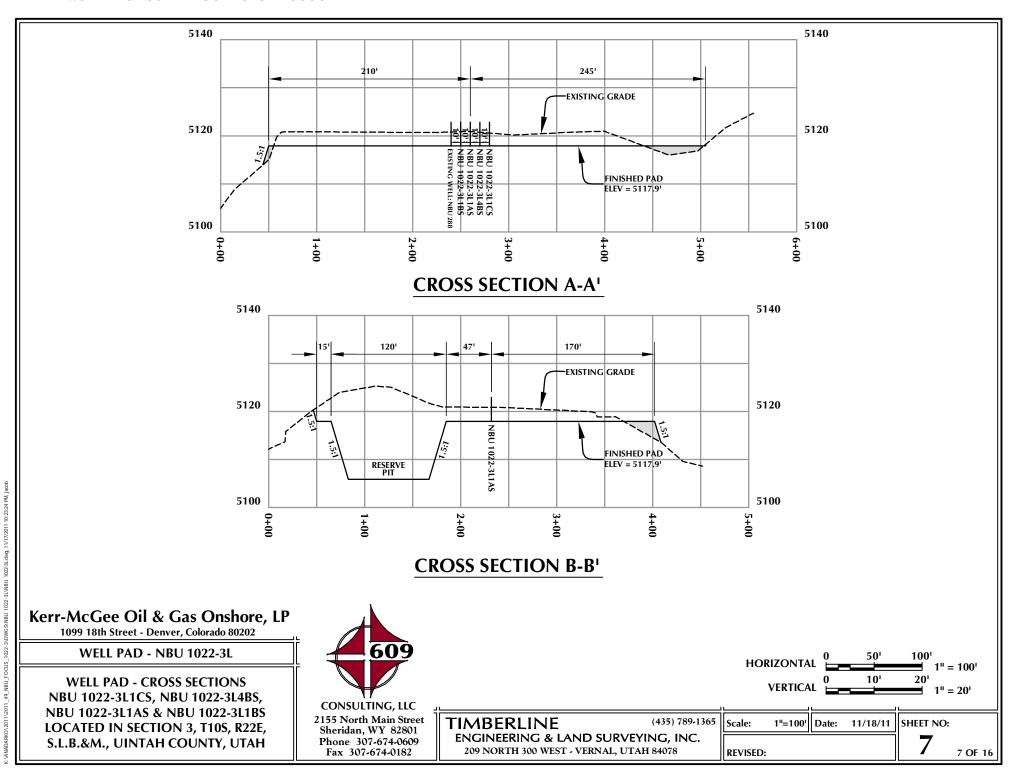


			SURFACE POS							OTTOM HOLE		
WELL NAME	NAI LATITUDE	D83 LONGITU	DE LATITUI	NAD27	ITUDE	OOTAGES	LATITU	NAD8	33 LONGITUDE	NAI LATITUDE	D27 LONGITUDE	FOOTACES
NBU	39°58'35.397"	109°25'59.	587" 39°58'35.	522" 109°25'.	57.129" 2	2085' FSL	39°58'35.	.171" 1	09°25'57.126"	39°58'35.296"	109°25'54.668"	2065' FSL
1022-3L1CS NBU	39.976499° 39°58'35.400"	109.433219 109°25'59.				627' FWL 2085' FSL	39.97643 39°58'32.		09.432535° 09°25'58.447"	39.976471° 39°58'32.434"	109.431852° 109°25'55.989"	818' FWL 1774' FSL
1022-3L4BS	39.976500°	109.433254	4° 39.97653.	5° 109.432	571° (617' FWL	39.97564	11° 1	09.432902°	39.975676°	109.432219°	712' FWL
NBU 1022-3L1AS	39°58'35.403" 39.976501°	109.433290				2086' FSL 607' FWL	39°58'38. 39.97738		09°25'57.085" 09.432524°	39°58'38.714" 39.977421°	109°25'54.627" 109.431841°	2411' FSL 825' FWL
NBU 1022-3L1BS	39°58'35.407" 39.976502°	109°25'59.9 109.433326				2086' FSL 597' FWL	39°58'40. 39.97803		09°25'59.173" 09.433104°	39°58'41.037" 39.978066°	109°25'56.715" 109.432421°	2644' FSL 665' FWL
NBU 288	39°58'35.410" 39.976503°	109°26'00. 109.433361	101" 39°58'35.	534" 109°25'.	57.643"	2086' FSL 587' FWL					•	1
	33.37 0303	109.433301		IVE COORDI			Position to	o Bottor	n Hole			
WELL NAME NBU	NORTH	EAST	WELL NAME NBU	NORTH	EAST	WELL NBU	NAME	NORTI		WELL NAM		EAST
1022-3L1CS	-22.81		1022-3L4BS	-312.8'	98.9'	1022-3	L1AS	322.6	214.7	1022-3L1B	s 557.31	62.0'
	BAL POSITIONS TO ERVATIONS TO $\frac{1}{2}$ $\frac{N88^{\circ}15}{AZ = 271}$	D BEAR NO		0 	14BS (10), 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	/ / 			=96.78222 04 <u>"E</u> - <u>192</u> tom Hole)	.98'	Bottom o Hole	ıf
Kerr-Mcc 1099 1 WELL	S C A L E S C A L E S C A L E S C A L E Bth Street - De LL PAD - PAD INTER BU 1022-3L1	& Gas O enver, Colors NBU 10 RFERENCI	ado 80202 D22-3L E PLAT	Az. to Exist. W.H.=271.68583° 10.0' NBI Az. to Exist. W.H.=271.88444° 20.0' NBI	Az. t	(To Bottom)	1°.04' - \ 1°.01' 1	EN	209 NORTH : SURVEYED:	IG & LAND	SURVEYINC RNAL, UTAH 84	
VVELIA - N	1022-3LT	CS, NBU T	UZZ-3L4B3,		CANICILI	TING H		LOAIES		SURVEYED	23/. 134/	ISHEET NO
NBU 1	1022-3L1AS &		2-3L1BS	2	155 Nort	h Main Stre	et	11-9-1 DATE I				—
NBU 1 Locat	1022-3L1AS & TED IN SECTION M., UINTAH	ON 3, T109	2-3L1BS S, R22E,		155 Nort Sheridan		et	DATE I 11-14-	DRAWN:	DRAWN BY	: C.T.C.	5 5 OF 16

6 OF 16

REVISED:

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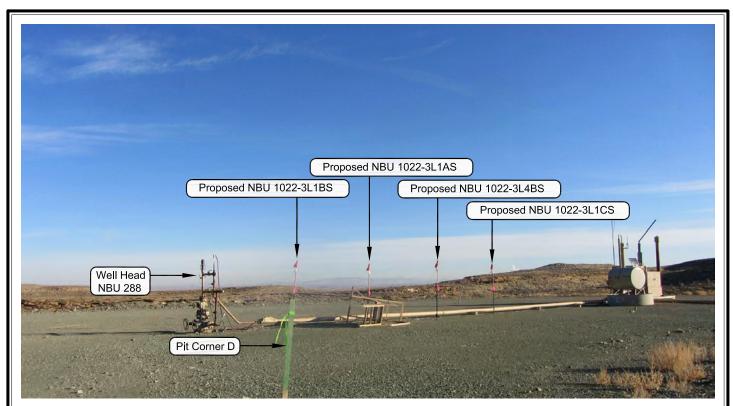


PHOTO VIEW: FROM CORNER D TO LOCATION STAKE

CAMERA ANGLE: NORTHEASTERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP

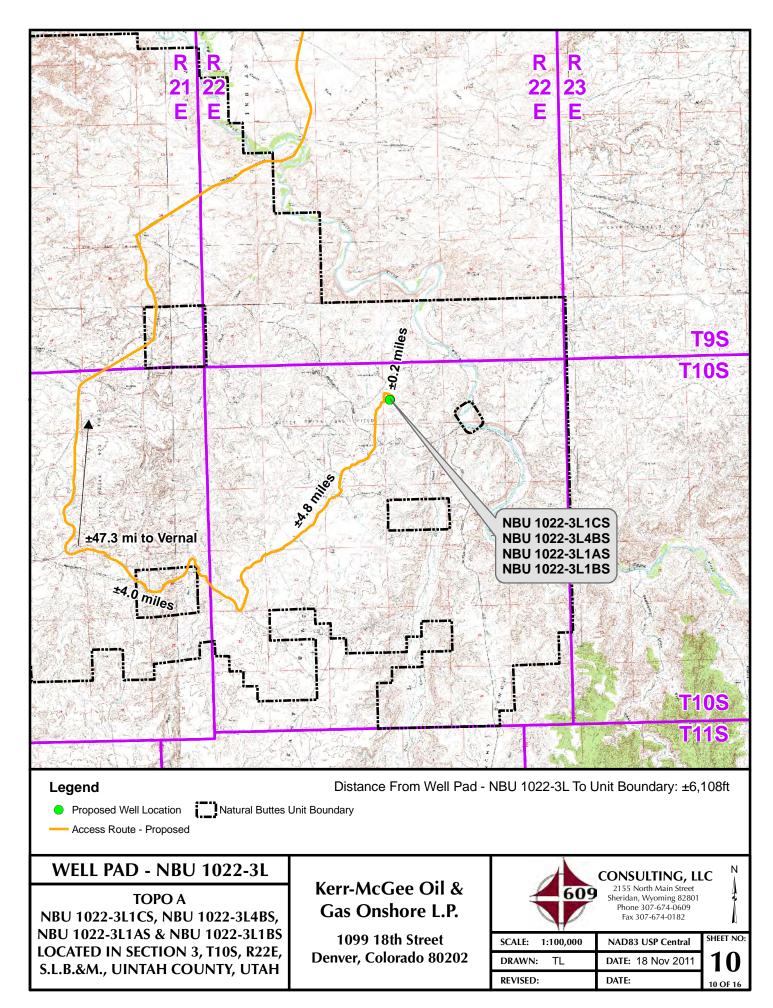
WELL PAD - NBU 1022-3L

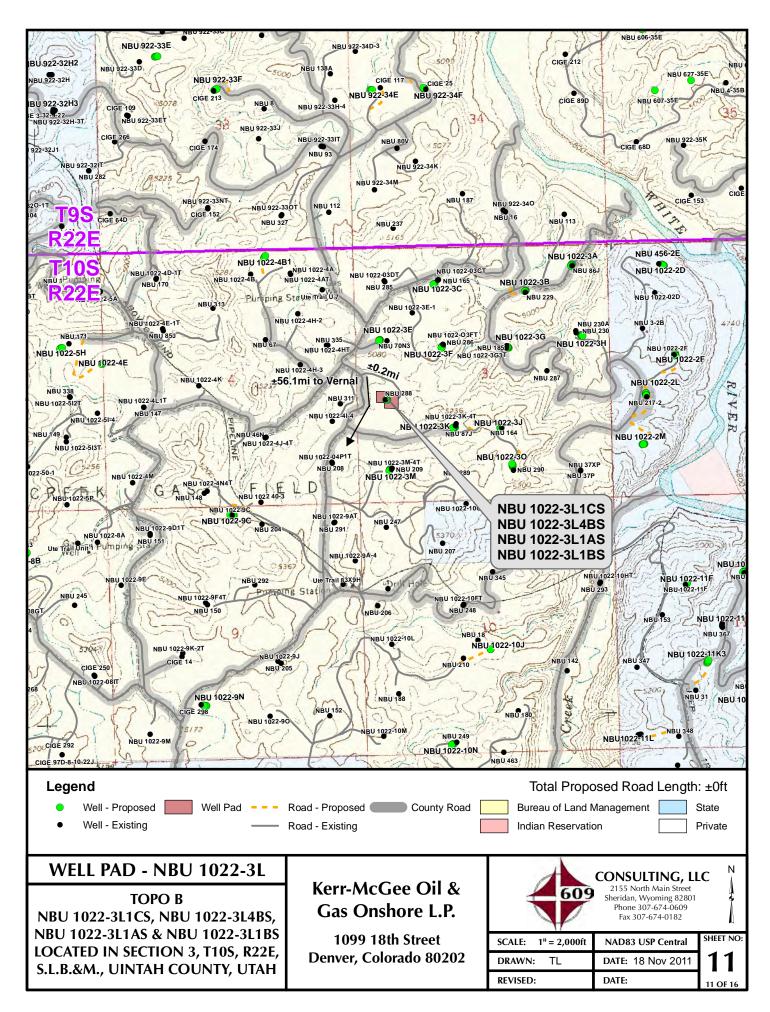
LOCATION PHOTOS
NBU 1022-3L1CS, NBU 1022-3L4BS,
NBU 1022-3L1AS & NBU 1022-3L1BS
LOCATED IN SECTION 3, T10S, R22E,
S.L.B.&M., UINTAH COUNTY, UTAH.

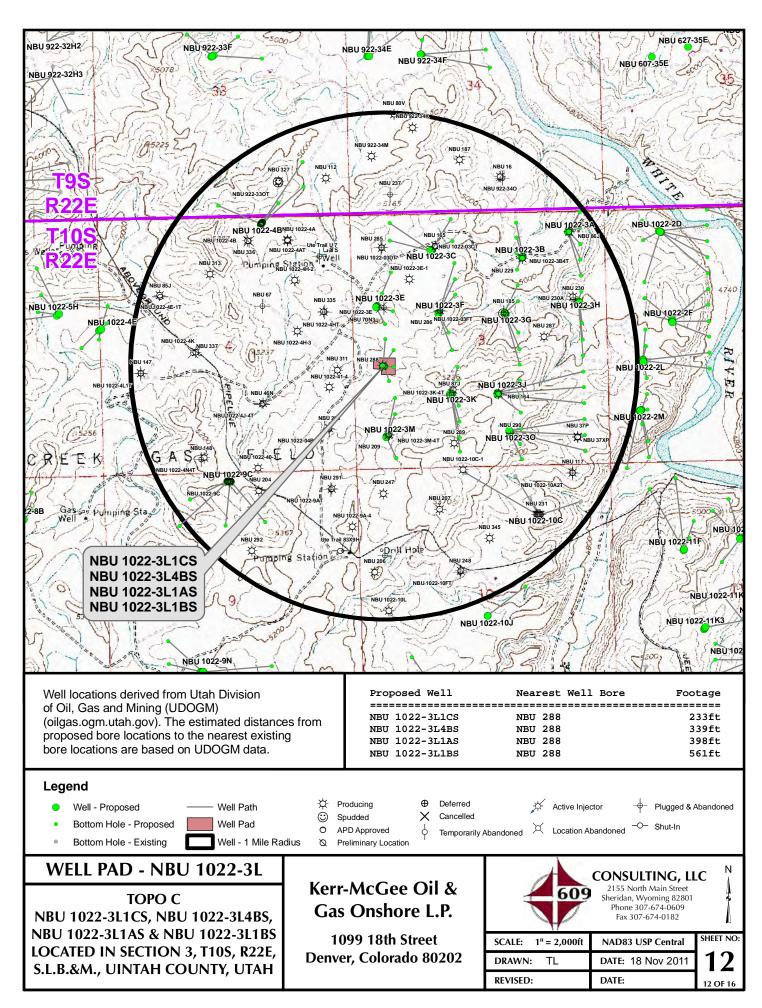


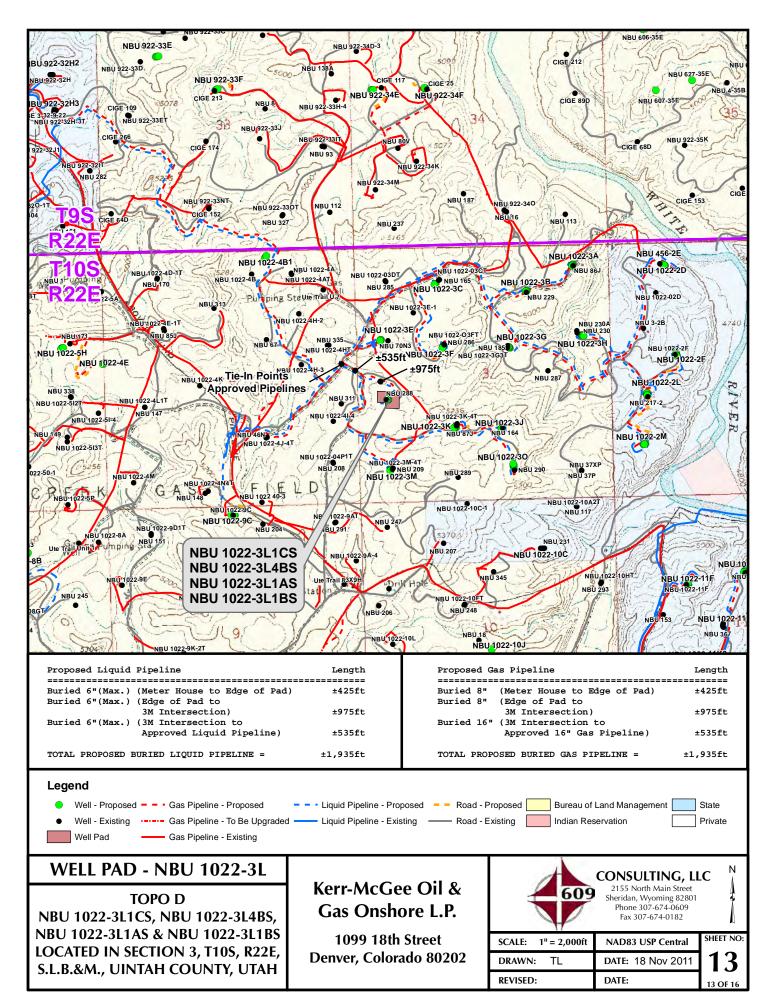
CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

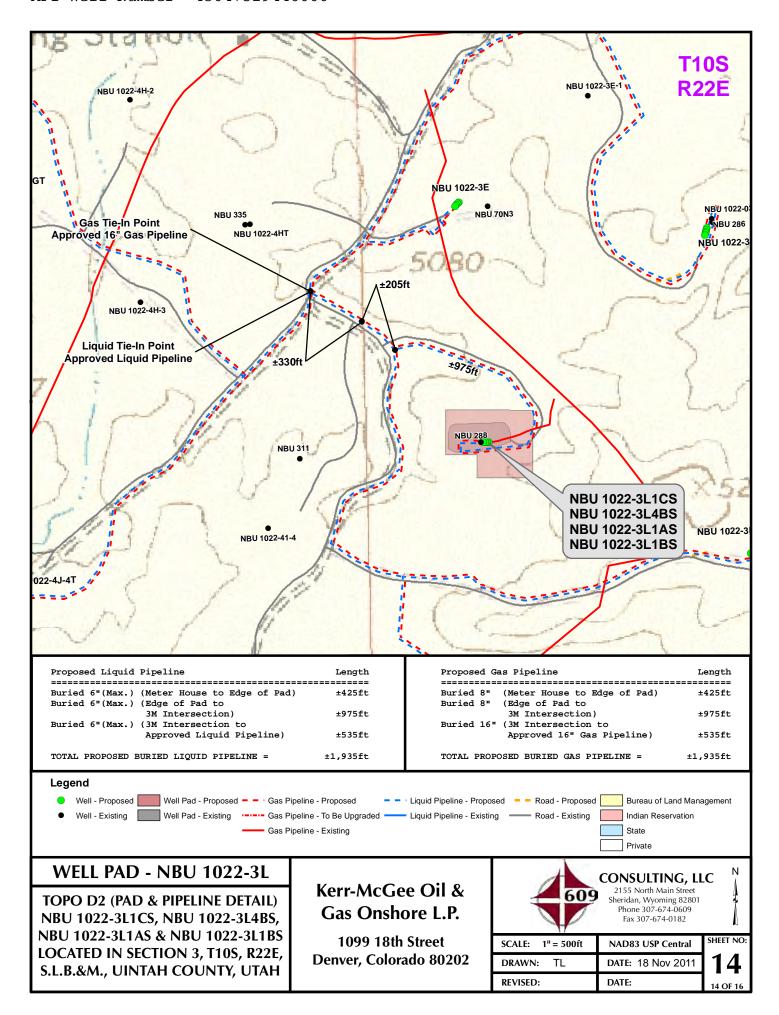
1	TIMBERLIN	JF (4	35) 789-1365
	engineering	& LAND SURVEYING WEST - VERNAL, UTAH 84	*
	DATE PHOTOS TAKEN: 11-9-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
	DATE DRAWN: 11-14-11	DRAWN BY: C.T.C.	9
	Date Last Revised:		9 OF 16

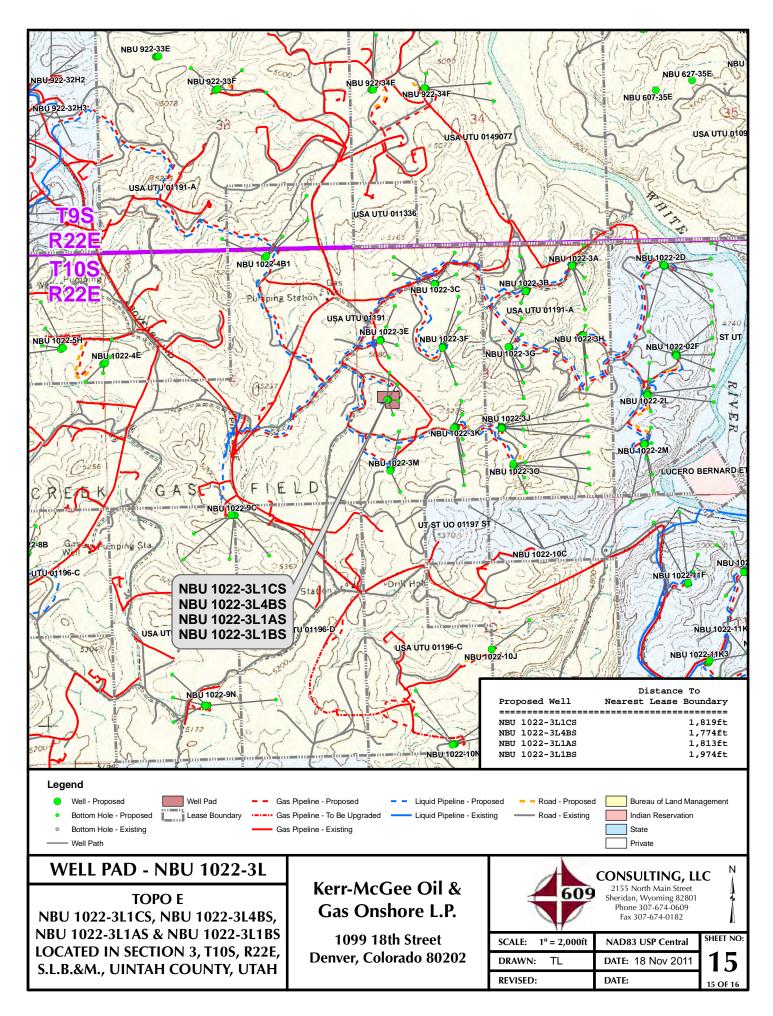












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 1022-3L WELLS - NBU 1022-3L1CS, NBU 1022-3L4BS, NBU 1022-3L1AS & NBU 1022-3L1BS Section 3, T10S, R22E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 23.8 miles to the intersection of the Bitter Creek Road (County B Road 4120). Exit left and proceed in a southeasterly direction along the Bitter Creek Road approximately 4.0 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 4.8 miles to a service road to the southeast. Exit right and proceed in a southeasterly direction along the service road approximately 0.2 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 56.3 miles in a southerly direction.

SHEET 16 OF 16

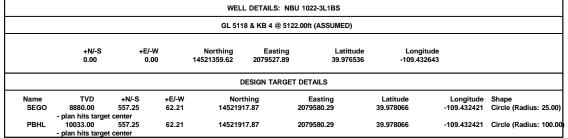
API Well Number: 43047 520 9044 00700 - UTM (feet), NAD27, Zone 12N

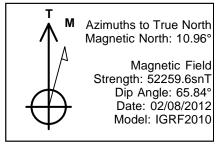
Scientific Drilling
Rocky Mountain Operations

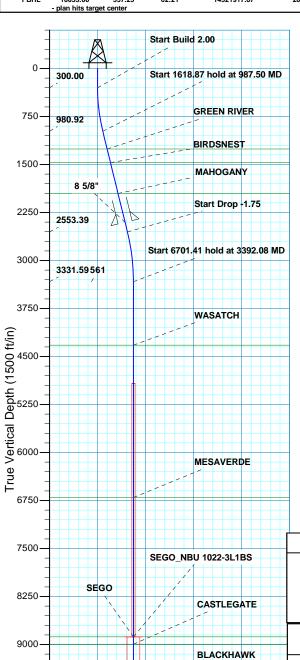
Site: NBU 1022-3L PAD Well: NBU 1022-3L1BS

Wellbore: OH
Design: PLAN #1









TD at 10093.49

2250

3000

9750

10500

11250

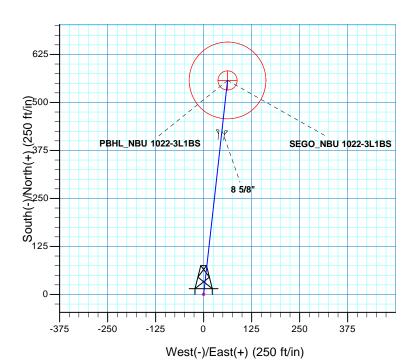
-750

10033.0**5**61

750

1500

Vertical Section at 6.37° (1500 ft/in)



	SECTION DETAILS												
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target				
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	rango:				
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00					
987.50	13.75	6.37	980.92	81.59	9.11	2.00	6.37	82.10					
2606.37	13.75	6.37	2553.39	464.00	51.80	0.00	0.00	466.88					
3392.08	0.00	0.00	3331.59	557.25	62.21	1.75	180.00	560.71					
10093.49	0.00	0.001	10033.00	557.25	62.21	0.00	0.00	560.71	PBHL_NBU 1022-3L1BS				
								FORM	IATION TOP DETAILS				

PROJECT DETAILS: UTAH - UTM (feet), NAD27, Zone 12N	TVDPath	MDPath	Formation	
Geodetic System: Universal Transverse Mercator (US Survey Feet) Datum: NAD 1927 (NADCON CONUS) Ellipsoid: Clarke 1866 Zone: Zone 12N (114 W to 108 W) Location: SECTION 3 T10S R22E System Datum: Mean Sea Level	1257.00 1470.00 1953.00 4324.00 6702.00 8880.00	1271.73 1491.01 1988.26 4384.49 6762.49 8940.49	GREEN RIVER BIRDSNEST MAHOGANY WASATCH MESAVERDE SEGO	
System Datum: Mean Sea Level CASING DETAILS	8996.00 9433.00	9056.49 9493.49	CASTLEGATE BLACKHAWK	

CASING DETAILS

TVD MD Name Size 2403.00 2451.54 8 5/8" 8.625

Plan: PLAN #1 (NBU 1022-3L1BS/OH)

RECEIV Created By: Gabe Kendall Date: 9:27, February 09 2012



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-3L PAD NBU 1022-3L1BS

OH

Plan: PLAN #1

Standard Planning Report

09 February, 2012





Project:

SDIPlanning Report



Database: EDM 5000.1 Single User Db Company: US ROCKIES REGION PLAI

US ROCKIES REGION PLANNING
UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3L1BS

GL 5118 & KB 4 @ 5122.00ft (ASSUMED) GL 5118 & KB 4 @ 5122.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: Zone 12N (114 W to 108 W)

Mean Sea Level

Site NBU 1022-3L PAD, SECTION 3 T10S R22E

Northing: 14,521,359.42 usft Site Position: Latitude: 39.976534 From: Lat/Long Easting: 2,079,557.87 usft Longitude: -109.432536 **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.01 13.200 in

System Datum:

Well NBU 1022-3L1BS, 2086 FSL 597 FWL

 Well Position
 +N/-S
 0.73 ft
 Northing:
 14,521,359.62 usft
 Latitude:
 39.976536

 +E/-W
 -29.98 ft
 Easting:
 2,079,527.88 usft
 Longitude:
 -109.432643

Position Uncertainty0.00 ftWellhead Elevation:Ground Level:5,118.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (nT) (°) (°) IGRF2010 02/08/12 10.96 65.84 52.260

PLAN #1 Design **Audit Notes:** Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 6.37

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
987.50	13.75	6.37	980.92	81.59	9.11	2.00	2.00	0.00	6.37	
2,606.37	13.75	6.37	2,553.39	464.00	51.80	0.00	0.00	0.00	0.00	
3,392.08	0.00	0.00	3,331.59	557.25	62.21	1.75	-1.75	0.00	180.00	
10,093.49	0.00	0.00	10,033.00	557.25	62.21	0.00	0.00	0.00	0.00 PE	3HL_NBU 1022-3L1



SDI **Planning Report**



EDM 5000.1 Single User Db Database: Company: Project:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

NBU 1022-3L PAD Site: Well: NBU 1022-3L1BS

Wellbore: ОН Design: PLAN #1 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 1022-3L1BS

GL 5118 & KB 4 @ 5122.00ft (ASSUMED) GL 5118 & KB 4 @ 5122.00ft (ASSUMED)

True

Minimum Curvature

ned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build	2.00								
400.00	2.00	6.37	399.98	1.73	0.19	1.75	2.00	2.00	0.00
500.00	4.00	6.37	499.84	6.94	0.77	6.98	2.00	2.00	0.00
600.00	6.00	6.37	599.45	15.60	1.74	15.69	2.00	2.00	0.00
700.00	8.00	6.37	698.70	27.71	3.09	27.88	2.00	2.00	0.00
800.00	10.00	6.37	797.47	43.25	4.83	43.52	2.00	2.00	0.00
900.00	12.00	6.37	895.62	62.22	6.95	62.60	2.00	2.00	0.00
987.50	13.75	6.37	980.92	81.59	9.11	82.10	2.00	2.00	0.00
	37 hold at 987.50		300.02	31.00	0.11	32.10	2.00	2.00	0.00
1,000.00	13.75	6.37	993.06	84.54	9.44	85.07	0.00	0.00	0.00
1,100.00	13.75	6.37	1,090.20	108.17	12.07	108.84	0.00	0.00	0.00
1,200.00	13.75	6.37	1,187.33	131.79	14.71	132.61	0.00	0.00	0.00
1,200.00	13.75	6.37	1,167.33	148.73	16.60	149.66	0.00	0.00	0.00
GREEN RIV		0.57	1,207.00	170.70	10.00	1-70.00	0.00	0.00	0.00
1,300.00	13.75	6.37	1,284.46	155.41	17.35	156.38	0.00	0.00	0.00
1,400.00	13.75	6.37	1,381.60	179.03	19.99	180.14	0.00	0.00	0.00
1,491.01	13.75	6.37	1,470.00	200.53	22.39	201.78	0.00	0.00	0.00
BIRDSNEST	Т								
1,500.00	13.75	6.37	1,478.73	202.65	22.62	203.91	0.00	0.00	0.00
1,600.00	13.75	6.37	1,575.87	226.28	25.26	227.68	0.00	0.00	0.00
1,700.00	13.75	6.37	1,673.00	249.90	27.90	251.45	0.00	0.00	0.00
1,800.00	13.75	6.37	1,770.14	273.52	30.53	275.22	0.00	0.00	0.00
1,900.00	13.75	6.37	1,867.27	297.14	33.17	298.99	0.00	0.00	0.00
1,988.26	13.75	6.37	1,953.00	317.99	35.50	319.97	0.00	0.00	0.00
MAHOGAN	Υ								
2,000.00	13.75	6.37	1,964.40	320.76	35.81	322.76	0.00	0.00	0.00
2,100.00	13.75	6.37	2,061.54	344.39	38.44	346.52	0.00	0.00	0.00
2,100.00	13.75	6.37	2,158.67	368.01	41.08	370.29	0.00	0.00	0.00
2,300.00	13.75	6.37	2,156.67	391.63	43.72	370.29	0.00	0.00	0.00
2,400.00	13.75	6.37	2,352.94	415.25	46.36	417.83	0.00	0.00	0.00
2,451.54	13.75	6.37	2,403.00	427.42	47.71	430.08	0.00	0.00	0.00
8 5/8"	10.70	0.01	_, .00.00			.50.00	0.00	0.00	0.00
2,500.00	13.75	6.37	2,450.07	438.87	48.99	441.60	0.00	0.00	0.00
2,600.00	13.75	6.37	2,547.21	462.49	51.63	465.37	0.00	0.00	0.00
2,606.37	13.75	6.37	2,553.39	464.00	51.80	466.88	0.00	0.00	0.00
Start Drop -									
2,700.00	12.11	6.37	2,644.65	484.82	54.12	487.83	1.75	-1.75	0.00
2,800.00	10.36	6.37	2,742.73	504.19	56.28	507.32	1.75	-1.75	0.00
2,900.00	8.61	6.37	2,841.36	520.56	58.11	523.80	1.75	-1.75	0.00
3,000.00	6.86	6.37	2,940.44	533.94	59.61	537.26	1.75	-1.75	0.00
3,100.00	5.11	6.37	3,039.89	544.31	60.76	547.69	1.75	-1.75	0.00
3,200.00	3.36	6.37	3,139.62	551.65	61.58	555.08	1.75	-1.75	0.00
3,300.00	1.61	6.37	3,239.52	555.96	62.06	559.41	1.75	-1.75	0.00
3,392.08	0.00	0.00	3,331.59	557.25		560.71	1.75		0.00
	0.00 11 hold at 3392.08		3,331.59	551.25	62.21	560.71	1./5	-1.75	0.00
3,400.00	11 noid at 3392.08	0.00	3,339.51	557.25	62.21	560.71	0.00	0.00	0.00
3,500.00	0.00	0.00	3,339.51	557.25 557.25	62.21	560.71	0.00	0.00	0.00
3,600.00	0.00	0.00	3,539.51	557.25	62.21	560.71	0.00	0.00	0.00
3,700.00	0.00	0.00	3,639.51	557.25	62.21	560.71	0.00	0.00	0.00



SDIPlanning Report



Database: ED Company: US Project: UT

EDM 5000.1 Single User Db US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3L1BS

GL 5118 & KB 4 @ 5122.00ft (ASSUMED) GL 5118 & KB 4 @ 5122.00ft (ASSUMED)

True

Minimum Curvature

esign:	PLAN #1								
lanned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,800.00	0.00	0.00	3,739.51	557.25	62.21	560.71	0.00	0.00	0.00
3,900.00	0.00	0.00	3,839.51	557.25	62.21	560.71	0.00	0.00	0.00
4,000.00	0.00	0.00	3,939.51	557.25	62.21	560.71	0.00	0.00	0.00
4,100.00	0.00	0.00	4,039.51	557.25	62.21	560.71	0.00	0.00	0.00
4,200.00	0.00	0.00	4,139.51	557.25	62.21	560.71	0.00	0.00	0.00
4,300.00	0.00	0.00	4,239.51	557.25	62.21	560.71	0.00	0.00	0.00
4,384.49	0.00	0.00	4,239.51	557.25 557.25	62.21	560.71	0.00	0.00	0.00
	0.00	0.00	4,324.00	337.23	02.21	300.71	0.00	0.00	0.00
WASATCH	0.00	0.00	4 220 54	F F 7 O F	00.04	FC0 74	0.00	0.00	0.00
4,400.00	0.00	0.00	4,339.51	557.25	62.21	560.71	0.00	0.00	0.00
4,500.00	0.00	0.00	4,439.51	557.25	62.21	560.71	0.00	0.00	0.00
4,600.00	0.00	0.00	4,539.51	557.25	62.21	560.71	0.00	0.00	0.00
4,700.00	0.00	0.00	4,639.51	557.25	62.21	560.71	0.00	0.00	0.00
4,800.00	0.00	0.00	4,739.51	557.25	62.21	560.71	0.00	0.00	0.00
4,900.00	0.00	0.00	4,839.51	557.25	62.21	560.71	0.00	0.00	0.00
5,000.00	0.00	0.00	4,939.51	557.25	62.21	560.71	0.00	0.00	0.00
5,100.00	0.00	0.00	5,039.51	557.25	62.21	560.71	0.00	0.00	0.00
5,200.00	0.00	0.00	5,139.51	557.25	62.21	560.71	0.00	0.00	0.00
5,300.00	0.00	0.00	5,239.51	557.25	62.21	560.71	0.00	0.00	0.00
5,400.00	0.00	0.00	5,339.51	557.25	62.21	560.71	0.00	0.00	0.00
5,500.00	0.00	0.00	5,439.51	557.25	62.21	560.71	0.00	0.00	0.00
5,600.00	0.00	0.00	5,539.51	557.25	62.21	560.71	0.00	0.00	0.00
5,700.00	0.00	0.00	5,639.51	557.25	62.21	560.71	0.00	0.00	0.00
5,800.00	0.00	0.00	5,739.51	557.25	62.21	560.71	0.00	0.00	0.00
5,900.00	0.00	0.00	5,839.51	557.25	62.21	560.71	0.00	0.00	0.00
6,000.00	0.00	0.00	5,939.51	557.25	62.21	560.71	0.00	0.00	0.00
6,100.00	0.00	0.00	6,039.51	557.25	62.21	560.71	0.00	0.00	0.00
6,200.00	0.00	0.00	6,139.51	557.25	62.21	560.71	0.00	0.00	0.00
6,300.00	0.00	0.00	6,239.51	557.25	62.21	560.71	0.00	0.00	0.00
6,400.00	0.00	0.00	6,339.51	557.25	62.21	560.71	0.00	0.00	0.00
6,500.00	0.00	0.00	6,439.51	557.25	62.21	560.71	0.00	0.00	0.00
6,600.00	0.00	0.00	6,539.51	557.25	62.21	560.71	0.00	0.00	0.00
6,700.00	0.00	0.00	6,639.51	557.25	62.21	560.71	0.00	0.00	0.00
6,762.49	0.00	0.00	6,702.00	557.25	62.21	560.71	0.00	0.00	0.00
MESAVERDI	E								
6,800.00	0.00	0.00	6,739.51	557.25	62.21	560.71	0.00	0.00	0.00
6,900.00	0.00	0.00	6,839.51	557.25	62.21	560.71	0.00	0.00	0.00
7,000.00	0.00	0.00	6,939.51	557.25	62.21	560.71	0.00	0.00	0.00
7,100.00	0.00	0.00	7,039.51	557.25	62.21	560.71	0.00	0.00	0.00
7,200.00	0.00	0.00	7,139.51	557.25	62.21	560.71	0.00	0.00	0.00
7,300.00	0.00	0.00	7,239.51	557.25	62.21	560.71	0.00	0.00	0.00
7,400.00	0.00	0.00	7,339.51	557.25	62.21	560.71	0.00	0.00	0.00
7,500.00	0.00	0.00	7,439.51	557.25	62.21	560.71	0.00	0.00	0.00
7,600.00	0.00	0.00	7,539.51	557.25	62.21	560.71	0.00	0.00	0.00
7,700.00	0.00	0.00	7,639.51	557.25	62.21	560.71	0.00	0.00	0.00
7,800.00	0.00	0.00	7,739.51	557.25	62.21	560.71	0.00	0.00	0.00
7,900.00	0.00	0.00	7,839.51	557.25	62.21	560.71	0.00	0.00	0.00
8,000.00	0.00	0.00	7,939.51	557.25	62.21	560.71	0.00	0.00	0.00
8,100.00	0.00	0.00	8,039.51	557.25	62.21	560.71	0.00	0.00	0.00
8,200.00	0.00	0.00	8,139.51	557.25	62.21	560.71	0.00	0.00	0.00
8,300.00	0.00	0.00	8,239.51	557.25	62.21	560.71	0.00	0.00	0.00
8,400.00	0.00	0.00	8,339.51	557.25	62.21	560.71	0.00	0.00	0.00
8,500.00	0.00	0.00	8,439.51	557.25	62.21	560.71	0.00	0.00	0.00
8,600.00	0.00	0.00	8,539.51	557.25	62.21	560.71	0.00	0.00	0.00
8,700.00	0.00	0.00	8,639.51	557.25	62.21	560.71	0.00	0.00	0.00



SDIPlanning Report



Database: Company: Project:

Site:

EDM 5000.1 Single User Db US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

 Wellbore:
 OH

 Design:
 PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3L1BS

GL 5118 & KB 4 @ 5122.00ft (ASSUMED) GL 5118 & KB 4 @ 5122.00ft (ASSUMED)

True

Minimum Curvature

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,800.00	0.00	0.00	8,739.51	557.25	62.21	560.71	0.00	0.00	0.00
8,900.00	0.00	0.00	8,839.51	557.25	62.21	560.71	0.00	0.00	0.00
8,940.49	0.00	0.00	8,880.00	557.25	62.21	560.71	0.00	0.00	0.00
SEGO - SEG	O_NBU 1022-3L	1BS							
9,000.00	0.00	0.00	8,939.51	557.25	62.21	560.71	0.00	0.00	0.00
9,056.49	0.00	0.00	8,996.00	557.25	62.21	560.71	0.00	0.00	0.00
CASTLEGAT	ΓE								
9,100.00	0.00	0.00	9,039.51	557.25	62.21	560.71	0.00	0.00	0.00
9,200.00	0.00	0.00	9,139.51	557.25	62.21	560.71	0.00	0.00	0.00
9,300.00	0.00	0.00	9,239.51	557.25	62.21	560.71	0.00	0.00	0.00
9,400.00	0.00	0.00	9,339.51	557.25	62.21	560.71	0.00	0.00	0.00
9,493.49	0.00	0.00	9,433.00	557.25	62.21	560.71	0.00	0.00	0.00
BLACKHAW	K								
9,500.00	0.00	0.00	9,439.51	557.25	62.21	560.71	0.00	0.00	0.00
9,600.00	0.00	0.00	9,539.51	557.25	62.21	560.71	0.00	0.00	0.00
9,700.00	0.00	0.00	9,639.51	557.25	62.21	560.71	0.00	0.00	0.00
9,800.00	0.00	0.00	9,739.51	557.25	62.21	560.71	0.00	0.00	0.00
9,900.00	0.00	0.00	9,839.51	557.25	62.21	560.71	0.00	0.00	0.00
10,000.00	0.00	0.00	9,939.51	557.25	62.21	560.71	0.00	0.00	0.00
10,093.49	0.00	0.00	10,033.00	557.25	62.21	560.71	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SEGO_NBU 1022-3L1B - plan hits target cen - Circle (radius 25.00		0.00	8,880.00	557.25	62.21	14,521,917.88	2,079,580.29	39.978066	-109.432421
PBHL_NBU 1022-3L1B\$ - plan hits target cen - Circle (radius 100.0		0.00	10,033.00	557.25	62.21	14,521,917.88	2,079,580.29	39.978066	-109.432421

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,451.54	2,403.00	8 5/8"	8.625	11.000



SDIPlanning Report



Database: Company: Project: EDM 5000.1 Single User Db US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

Wellbore: OH
Design: PLAN #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well NBU 1022-3L1BS

GL 5118 & KB 4 @ 5122.00ft (ASSUMED) GL 5118 & KB 4 @ 5122.00ft (ASSUMED)

True

Minimum Curvature

nations							
	Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
	1,271.73	1,257.00	GREEN RIVER				
	1,491.01	1,470.00	BIRDSNEST				
	1,988.26	1,953.00	MAHOGANY				
	4,384.49	4,324.00	WASATCH				
	6,762.49	6,702.00	MESAVERDE				
	8,940.49	8,880.00	SEGO				
	9,056.49	8,996.00	CASTLEGATE				
	9,493.49	9,433.00	BLACKHAWK				

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
987.50	980.92	81.59	9.11	Start 1618.87 hold at 987.50 MD
2,606.37	2,553.39	464.00	51.80	Start Drop -1.75
3,392.08	3,331.59	557.25	62.21	Start 6701.41 hold at 3392.08 MD
10,093.49	10,033.00	557.25	62.21	TD at 10093.49

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 1022-3L PAD

<u> API #</u>		NBU 1022-3L1AS		
	Surface:	2086 FSL / 607 FWL	NWSW	Lot
	BHL:	2411 FSL / 825 FWL	NWSW	Lot
<u> API #</u>		NBU 1022-3L1B\$		
	Surface:	2086 FSL / 597 FWL	NWSW	Lot
	BHL:	2644 FSL / 665 FWL	NWSW	Lot
API #4304750170		NBU 1022-3L1CS		
	Surface:	2085 FSL / 627 FWL	NWSW	Lot
	BHL:	2065 FSL / 818 FWL	NWSW	Lot
API #4304750492		NBU 1022-3L4BS		
	Surface:	2085 FSL / 617 FWL	NWSW	Lot
	BHL:	1774 FSL / 712 FWL	NWSW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on December 6, 2011. Present were:

- · David Gordon, Tyler Cox BLM;
- · Jacob Dunham 609 Consulting;
- John Slaugh, Mitch Batty Timberline Engineering & Land Surveying, Inc.; and
- Gina Becker, Charles Chase, Doyle Holmes, Casey McGee, Grizz Oleen, Sheila Wopsock Kerr-McGee

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

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B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the NBU 288, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on February 10, 2012. Gathering (pipeline) infrastructure will be

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1022-3L1CS/ 1022-3L4BS

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utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit A and Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is $\pm 1,935$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±425' (0.08 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 8" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±975' (0.18 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 8" buried gas gathering pipeline from the edge of the pad to tie-in to the proposed 16" gas gathering pipeline at the NBU 1022-3M intersection. Please refer to Exhibit A, Line 8.
- ±535' (0.10 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 16" buried gas gathering pipeline from the NBU 1022-3M intersection to the approved 16" gas pipeline in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3J, NBU 1022-3K and the NBU 1022-3M pads. Please refer to Exhibit A, Line 1.

LIQUID GATHERING

Please refer to Exhibit B and Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,935$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- $\pm425^{\circ}$ (0.08 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±975' (0.18 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to tie-in to the NBU 1022-3M intersection. Please refer to Exhibit B, Line 8.
- ±535' (0.10 miles) Section 3 T10S R22E (NW/4 SW/4) On-lease UTU-01191, BLM surface, New 6" buried liquid gathering pipeline from the NBU 1022-3M intersection to the approved liquid gathering line in 10S, 22E, Section 4. This pipeline will be used concurrently with the NBU 1022-3O, NBU 1022-3J, NBU 1022-3K and the NBU 1022-3M pads. Please refer Exhibit B, Line 1.

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Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

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Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

The Anadarko Completions Transportation System (ACTS) information:

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom or pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

Any hydrocarbons collected will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit.

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to

the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a reserve/completion pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

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Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

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Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

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Surface Use Plan of Operations 9 of 13

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

2/16/2012

NBU 1022-3L1AS/ 1022-3L1BS/ 1022-3L1CS/ 1022-3L4BS

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Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	Pure Live Seed lbs/acre
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass	1
(Arriba)	
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 - 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

NBU 1022-3L1AS/ 1022-3L1BS/ 1022-3L1CS/ 1022-3L4BS

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Onsite Specifics:

- Keep topsoil on shelf at corners 6 and 8.
- Trim spoils pile near corner 4 to avoid drainage.
- Armor fill slope from corner 3 to corner 2.
- Need to obtain a storm water permit
- BMP on the pit use (waddles, hay bails or silt fence)

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature review was completed on February 1, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 11-404.

A paleontological reconnaissance survey was completed on February 3, 2012 by Intermountain Paleo Consultants. For additional details please refer to report IPC 11-202PRE.

Biological field survey was completed on June 15, 2011 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-691.

Proposed Action Annual Emissions Tables:

Table 1: Proposed Action Annual Emissions (tons/year) ¹									
Pollutant	Development	Production	Total						
NOx	3.8	0.12	3.92						
CO	2.2	0.11	2.31						
VOC	0.1	4.9	5						
SO ₂	0.005	0.0043	0.0093						
PM_{10}	1.7	0.11	1.81						
PM _{2.5}	0.4	0.025	0.425						
Benzene	2.2E-03	0.044	0.046						
Toluene	1.6E-03	0.103	0.105						
Ethylbenzene	3.4E-04	0.005	0.005						
Xylene	1.1E-03	0.076	0.077						
n-Hexane	1.7E-04	0.145	0.145						
Formaldehyde	1.3E-02	8.64E-05	1.31E-02						

¹ Emissions include 1 producing well and associated operations traffic during the year in

which the project is developed

API Well Number: 43047529440000

NBU 1022-3L1AS/ 1022-3L1BS/ 1022-3L1CS/ 1022-3L4BS

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Table 2: Proposed Action versus 2012 WRAP Phase III Emissions								
	Inventory Comparison							
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory ^a (ton/yr)	Proposed Action to WRAP Phase					
NOx	15.68	16,547	0.09%					
VOC	20	127,495	0.02%					

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

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Surface Use Plan of Operations 13 of 13

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Gina T.Becker

February 16, 2012

Date



Kerr-McGee Oil & Gas Onshore LP 1099 18TH STREET STE. 1800 DENVER, CO 80202 720-929-6708 • FAX 720-929-7708 E-MAIL: JOE.JOHNSON@ANADARKO.COM

February 14, 2012

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11

NBU 1022-3L1BS

T10S-R22E

Section 3: NWSW/NWSW Surface: 2086' FSL, 597' FWL Bottom Hole: 2644' FSL, 665' FWL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 1022-3L1BS is located within the Natural Buttes Unit area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire
 directional well bore.

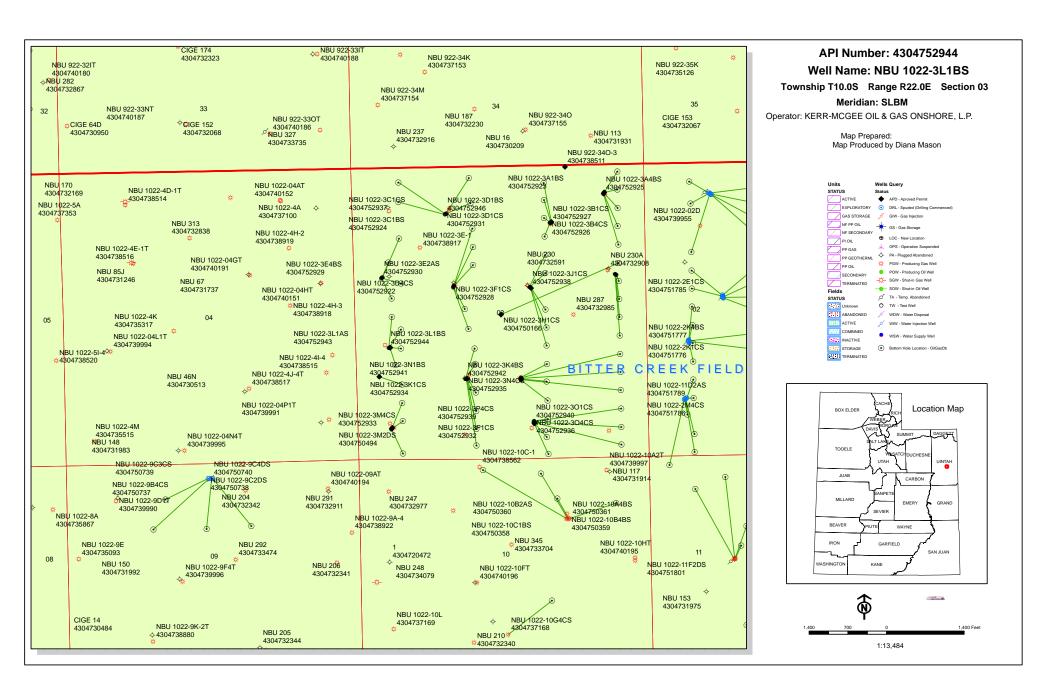
Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman

RECEIVED: July 06, 2012



API Well Number: 43047529440000

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

July 16, 2012

Memorandum

To: Assistant District Manager Minerals, Vernal District

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Natural Buttes Unit

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Natural Buttes Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-3H

43-047-52902 NBU 1022-3H4CS Sec 03 T10S R22E 1949 FNL 0549 FEL BHL Sec 03 T10S R22E 2396 FNL 0494 FEL Sec 03 T10S R22E 1939 FNL 0567 FEL 43-047-52906 NBU 1022-3I1CS BHL Sec 03 T10S R22E 2232 FSL 0494 FEL 43-047-52910 NBU 1022-3H4BS Sec 03 T10S R22E 1953 FNL 0540 FEL BHL Sec 03 T10S R22E 2065 FNL 0494 FEL 43-047-52914 NBU 1022-3I1BS Sec 03 T10S R22E 1944 FNL 0558 FEL BHL Sec 03 T10S R22E 2562 FSL 0494 FEL WELL PAD - NBU 1022-3G 43-047-52903 NBU 1022-3J1BS Sec 03 T10S R22E 2166 FNL 2090 FEL BHL Sec 03 T10S R22E 2402 FSL 1820 FEL 43-047-52907 NBU 1022-3G1CS Sec 03 T10S R22E 2153 FNL 2105 FEL BHL Sec 03 T10S R22E 1903 FNL 1821 FEL 43-047-52917 NBU 1022-3G1BS Sec 03 T10S R22E 2146 FNL 2112 FEL BHL Sec 03 T10S R22E 1572 FNL 1821 FEL 43-047-52938 NBU 1022-3J1CS Sec 03 T10S R22E 2159 FNL 2097 FEL BHL Sec 03 T10S R22E 2071 FSL 1820 FEL

RECEIVED: July 18, 2012

API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-3F

43-047-52904 NBU 1022-3K1BS Sec 03 T10S R22E 2143 FNL 1787 FWL

BHL Sec 03 T10S R22E 2399 FSL 2046 FWL

43-047-52913 NBU 1022-3F4CS Sec 03 T10S R22E 2133 FNL 1790 FWL

BHL Sec 03 T10S R22E 2531 FNL 1987 FWL

43-047-52919 NBU 1022-3F1BS Sec 03 T10S R22E 2114 FNL 1795 FWL

BHL Sec 03 T10S R22E 1411 FNL 2159 FWL

43-047-52921 NBU 1022-3C4CS Sec 03 T10S R22E 2104 FNL 1798 FWL

BHL Sec 03 T10S R22E 1078 FNL 2153 FWL

43-047-52928 NBU 1022-3F1CS Sec 03 T10S R22E 2123 FNL 1793 FWL

BHL Sec 03 T10S R22E 1742 FNL 2152 FWL

WELL PAD - NBU 1022-3J

43-047-52905 NBU 1022-3J4BS Sec 03 T10S R22E 1505 FSL 2293 FEL

BHL Sec 03 T10S R22E 1740 FSL 1820 FEL

43-047-52908 NBU 1022-3I4BS Sec 03 T10S R22E 1496 FSL 2294 FEL

BHL Sec 03 T10S R22E 1901 FSL 0494 FEL

43-047-52912 NBU 1022-301BS Sec 03 T10S R22E 1456 FSL 2295 FEL

BHL Sec 03 T10S R22E 1077 FSL 1819 FEL

43-047-52915 NBU 1022-3P1BS Sec 03 T10S R22E 1466 FSL 2295 FEL

BHL Sec 03 T10S R22E 1240 FSL 0494 FEL

43-047-52916 NBU 1022-3I4CS Sec 03 T10S R22E 1486 FSL 2294 FEL

BHL Sec 03 T10S R22E 1571 FSL 0494 FEL

WELL PAD - NBU 1022-3A

43-047-52909 NBU 1022-3H1BS Sec 03 T10S R22E 0488 FNL 0748 FEL

BHL Sec 03 T10S R22E 1405 FNL 0495 FEL

43-047-52923 NBU 1022-3A1BS Sec 03 T10S R22E 0453 FNL 0728 FEL

BHL Sec 03 T10S R22E 0083 FNL 0488 FEL

43-047-52925 NBU 1022-3A4BS Sec 03 T10S R22E 0470 FNL 0738 FEL

BHL Sec 03 T10S R22E 0744 FNL 0495 FEL

WELL PAD - NBU 1022-3K

43-047-52918 NBU 1022-3N1CS Sec 03 T10S R22E 1500 FSL 2008 FWL

BHL Sec 03 T10S R22E 0913 FSL 2150 FWL

43-047-52934 NBU 1022-3K1CS Sec 03 T10S R22E 1493 FSL 1969 FWL

BHL Sec 03 T10S R22E 2047 FSL 2147 FWL

43-047-52935 NBU 1022-3N4CS Sec 03 T10S R22E 1496 FSL 1988 FWL

BHL Sec 03 T10S R22E 0287 FSL 2143 FWL

43-047-52941 NBU 1022-3N1BS Sec 03 T10S R22E 1501 FSL 2018 FWL

BHL Sec 03 T10S R22E 1244 FSL 2150 FWL

43-047-52942 NBU 1022-3K4BS Sec 03 T10S R22E 1494 FSL 1978 FWL

BHL Sec 03 T10S R22E 1760 FSL 2154 FWL

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API # WELL NAME LOCATION

(Proposed PZ WASATCH-MESA VERDE)

WELL PAD - NBU 1022-3E

43-047-52920 NBU 1022-3E4CS Sec 03 T10S R22E 1960 FNL 0490 FWL

BHL Sec 03 T10S R22E 2324 FNL 0667 FWL

43-047-52922 NBU 1022-3D4CS Sec 03 T10S R22E 1939 FNL 0511 FWL

BHL Sec 03 T10S R22E 1245 FNL 0826 FWL

43-047-52929 NBU 1022-3E4BS Sec 03 T10S R22E 1953 FNL 0497 FWL

BHL Sec 03 T10S R22E 2057 FNL 0841 FWL

43-047-52930 NBU 1022-3E2AS Sec 03 T10S R22E 1946 FNL 0504 FWL

BHL Sec 03 T10S R22E 1676 FNL 0625 FWL

WELL PAD - NBU 1022-3C

43-047-52924 NBU 1022-3C1BS Sec 03 T10S R22E 0810 FNL 1682 FWL

BHL Sec 03 T10S R22E 0166 FNL 2110 FWL

43-047-52931 NBU 1022-3D1CS Sec 03 T10S R22E 0817 FNL 1664 FWL

BHL Sec 03 T10S R22E 0581 FNL 0826 FWL

43-047-52937 NBU 1022-3C1CS Sec 03 T10S R22E 0806 FNL 1692 FWL

BHL Sec 03 T10S R22E 0619 FNL 2130 FWL

43-047-52946 NBU 1022-3D1BS Sec 03 T10S R22E 0813 FNL 1673 FWL

BHL Sec 03 T10S R22E 0224 FNL 0833 FWL

WELL PAD - NBU 1022-3B

43-047-52926 NBU 1022-3B4CS Sec 03 T10S R22E 0998 FNL 1724 FEL

BHL Sec 03 T10S R22E 1241 FNL 1822 FEL

43-047-52927 NBU 1022-3B1CS Sec 03 T10S R22E 0988 FNL 1706 FEL

BHL Sec 03 T10S R22E 0578 FNL 1822 FEL

WELL PAD - NBU 1022-30

43-047-52932 NBU 1022-3P1CS Sec 03 T10S R22E 0699 FSL 2072 FEL

BHL Sec 03 T10S R22E 0909 FSL 0494 FEL

43-047-52936 NBU 1022-304CS Sec 03 T10S R22E 0660 FSL 2065 FEL

BHL Sec 03 T10S R22E 0106 FSL 1825 FEL

43-047-52939 NBU 1022-3P4CS Sec 03 T10S R22E 0680 FSL 2069 FEL

BHL Sec 03 T10S R22E 0256 FSL 0500 FEL

43-047-52940 NBU 1022-301CS Sec 03 T10S R22E 0709 FSL 2073 FEL

BHL Sec 03 T10S R22E 0746 FSL 1819 FEL

WELL PAD - NBU 1022-3M

43-047-52933 NBU 1022-3M4CS Sec 03 T10S R22E 0607 FSL 0615 FWL

BHL Sec 03 T10S R22E 0163 FSL 0812 FWL

WELL PAD - NBU 1022-3L

43-047-52943 NBU 1022-3L1AS Sec 03 T10S R22E 2086 FSL 0607 FWL

BHL Sec 03 T10S R22E 2411 FSL 0825 FWL

43-047-52944 NBU 1022-3L1BS Sec 03 T10S R22E 2086 FSL 0597 FWL

BHL Sec 03 T10S R22E 2644 FSL 0665 FWL

Page 3

API Well Number: 43047529440000

Page 4

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard

Div. cn=Michael L. Coulthard, o=Bureau of Land Management,
ousBranch of Minerals, email=Michael_Coulthard@blm.gov, c=US
Date: 2012.07.16 13:26:05-06:00'

bcc: File - Natural Buttes Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:7-16-12

RECEIVED: July 18, 2012

API Well Number: 43047529440000

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 7/6/2012 API NO. ASSIGNED: 43047529440000

WELL NAME: NBU 1022-3L1BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: NWSW 03 100S 220E **Permit Tech Review:**

> SURFACE: 2086 FSL 0597 FWL **Engineering Review:**

> BOTTOM: 2644 FSL 0665 FWL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.97634 LONGITUDE: -109.43333 **UTM SURF EASTINGS: 633780.00** NORTHINGS: 4426307.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-01191 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 1 - Federal **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Unit: NATURAL BUTTES Bond: FEDERAL - WYB000291

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit**

Board Cause No: Cause 173-14 Water Permit: 43-8496

Effective Date: 12/2/1999 **RDCC Review:**

Siting: Suspends General Siting Fee Surface Agreement

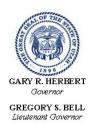
✓ Intent to Commingle R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 1022-3L1BS **API Well Number:** 43047529440000

Lease Number: UTU-01191 Surface Owner: FEDERAL Approval Date: 8/21/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil

shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

RECEVED

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

UNITED STATES DEPARTMENT OF THE INTERIOR FEB 2 7 2012 BUREAU OF LAND MANAGEMENT

5. Lease Serial No. UTU01191

APPLICATION FOR PERMIT	TO DRILL OF REE	MERILLIAN I	6. If Indian, Allottee or Trib	e Name		
la. Type of Work: ☑ DRILL ☐ REENTER		AUG 0 8 2012	7. If Unit or CA Agreement, Name and No. UTU63047A			
lb. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Oth	ner 🔲 Single	DhOIL, A Multiple Zone	8. Lease Name and Well No NBU 1022-3L1BS	•		
2. Name of Operator Contact: KERR-MCGEE OIL & GAS ONSHORMail: GINA.BE	GINA T BECKER		9. API Well No. 43-041-520	144		
3a. Address P.O. BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include Ph: 720-929-6086 Fx: 720-929-7086	area code)	10. Field and Pool, or Exploratory NATURAL BUTTES			
4. Location of Well (Report location clearly and in accorda	ements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area			
At surface NWSW 2086FSL 597FWL	·		Sec 3 T10S R22E M	er SLB		
At proposed prod. zone NWSW 2644FSL 665FWL		9.433104 W Lon				
14. Distance in miles and direction from nearest town or post of APPROXIMATELY 56 MILES SOUTHEAST OF	12. County or Parish UINTAH	13. State UT				
 Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1974 	ise	17. Spacing Unit dedicated to this well				
18. Distance from proposed location to nearest well, drilling,		20. BLM/BIA Bond No. on	file			
completed, applied for, on this lease, ft. 561	10093 MD 10033 TVD		WYB000291			
21. Elevations (Show whether DF, KB, RT, GL, etc. 5121 GL	vork will start	23. Estimated duration 60-90 DAYS				
	24. Attac	chments				
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Or	der No. 1, shall be attached to the	nis form:			
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Off 	em Lands, the fice).	 Bond to cover the operation Item 20 above). Operator certification Such other site specific infrauthorized officer. 	·			
25. Signature (Electronic Submission)	25. Signature Name (Printed/Typed) (Electronic Submission) GINA T BECKER Ph: 720-929-6086					
Title REGULATORY ANALYST II				UL ^{te} 3 1 2012		
Approved by (Signature) Name (Printed/Typed) Jerry Kenczka						
Title Assistant Field Manager Lands & Mineral Resources	Office	NAL FIELD OFFICE				
Application approval does not warrant or certify the applicant ho operations thereon. Conditions of approval, if any, are attached.		to those rights in the subject lead FAPPROVAL ATTAC		licant to conduct		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, r States any false, fictitious or fraudulent statements or representat			make to any department or ag	ency of the United		

Additional Operator Remarks (see next page)

Electronic Submission #131110 verified by the BLM Well Information System For KERR-MCGEE OIL & GAS ONSHORE, sent to the Vernal

NOTICE OF APPROVAL



** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

MGX1270A2

MK-1/10/10



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No: API No: Kerr-McGee Oil & Gas Onshore, LP

170 South 500 East

NBU 1022-3L1BS

43-047-52944

Location: Lease No: NWSW, Sec. 3, T10S, R22E

UTU-01191

Agreement:

Natural Buttes Unit

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)		Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)		Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

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7/18/2012

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
 work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
 mitigation may be necessary for the discovered paleontologic material before construction can
 continue.
- The following will be used as standard operating procedures: Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring, Glycol Dehydration and Amine Unites, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.
- All reclamation activities will comply with the Green River Reclamation Guidelines.
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established.
- Noxious and invasive weeds will be controlled by the proponent throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
 integrated pest management program is applicable, coordination has been undertaken with the
 state and local management program (if existing). A copy of the pest management plan will be
 submitted for each project.
- A pesticide use proposal (PUP) will be obtained for the project, by the proponent if applicable.
- A permitted paleontologist is to be present to monitor construction at all well pads during all surface disturbing actives: examples include the following; building of the well pad, access road, and pipelines.

To maintain compliance with current cactus survey protocols, the following measures will be required:

- 1. If construction does not occur within 4 years of the original survey date, new 100% clearance surveys will be required.
- 2. Prior to construction within 4 years of the original survey date, a spot check survey will be required during the year of construction. KMG and their respective 3rd party surveyor will refer to the current

Page 3 of 7 Well: NBU 1022-3L1BS 7/18/2012

Sclerocactus Spot Check Survey Methods, to determine site specific survey distances and intensity levels.

- 3. Spot check reports will be reported to the BLM and the US Fish and Wildlife Service.
- 4. Construction will not commence until written approval is received from the BLM.

Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Uinta Basin hookless cactus is anticipated as a result of project activities.

- Construction or drilling is not allowed from January 1 August 31 on the NBU 1022-3O pad to minimize impacts during golden eagle nesting.
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or
 qualified biologist shall be notified to conduct surveys for raptors. Depending upon the results of
 the surveys, permission to proceed may or may not be granted by the Authorized Officer.
- The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes:
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and
 - c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32 inch mesh material.
- Approach velocities for intake structures will follow the National Marine Fisheries Service's
 document "Fish Screening Criteria for Anadromous Salmonids." For projects with an in-stream
 intake that operate in stream reaches where larval fish may be present, the approach velocity will
 not exceed 0.33 feet per second (ft/s).
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 318 North Vernal Avenue Vernal, UT 84078 Phone: (435) 781-9453

Kerr McGee can only use the following water source:
 Permit # 49-2307 JD Field Services Green River-Section 15, T2N, R22E

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DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

Site Specific Drilling Plan COA's:

Gamma ray Log shall be run from Total Depth to Surface.

Variances Granted:

Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40' from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.
- FIT Test. Variance granted due to well known geology and the problems that can occur with the FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order

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No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

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OPERATING REQUIREMENT REMINDERS:

 All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at www.ONRR.gov.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

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core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office
 Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in
 order that a representative may witness plugging operations. If a well is suspended or abandoned,
 all pits must be fenced immediately until they are backfilled. The "Subsequent Report of
 Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of
 the well bore, showing location of plugs, amount of cement in each, and amount of casing left in
 hole, and the current status of the surface restoration.

Sundry Number: 40023 API Well Number: 43047529440000

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191			
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT OF CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-3L1BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	SHORE, L.P.		9. API NUMBER: 43047529440000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2086 FSL 0597 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Mer	ridian: S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
Bate of Work Completion.	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
✓ SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
7/13/2013						
DRILLING REPORT	TUBING REPAIR	☐ VENT OR FLARE ☐	☐ WATER DISPOSAL			
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
Spud well 07/13/2 conductor hole to cement with 28 ands	COMPLETED OPERATIONS. Clearly show 2013 @ 12:00. MIRU Triple o 40', run 14",36.7# schedu sacks ready mix. Anticipate surface casing cement 07/2	A Bucket Rig, drill 20" ule 10 conductor pipe, ed surface spud date 29/2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY July 15, 2013			
NAME (PLEASE PRINT) Doreen Green	PHONE NUMB 435 781-9758	BER TITLE Regulatory Analyst II				
SIGNATURE		DATE				
N/A		7/15/2013				

RECEIVED: Jul. 15, 2013

Sundry Number: 42296 API Well Number: 43047529440000

		FORM 9				
1	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191			
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for procurrent bottom-hole depth, FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-3L1BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047529440000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PHC h Street, Suite 600, Denver, CO, 80217 377	DNE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2086 FSL 0597 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	HIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Meridian:	: S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF		CHANGE WELL NAME CONVERT WELL TYPE NEW CONSTRUCTION PLUG BACK RECOMPLETE DIFFERENT FORMATION TEMPORARY ABANDON WATER DISPOSAL APD EXTENSION OTHER: EPths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 06, 2013			
NAME (PLEASE PRINT) Teena Paulo	PHONE NUMBER 720 929-6236	TITLE Staff Regulatory Specialist				
SIGNATURE N/A		DATE 9/5/2013				

Sundry Number: 43358 API Well Number: 43047529440000

	STATE OF UTAH		FORM 9			
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191			
SUNDR	Y NOTICES AND REPORTS ON	I WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: NBU 1022-3L1BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047529440000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PH n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2086 FSL 0597 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	HP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Meridian	n: S	STATE: UTAH			
11. CHECI	K APPROPRIATE BOXES TO INDICATE I	NATURE OF NOTICE, REPOR	t, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE			
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	U TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
10/4/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p	vertinent deteile including detec	lamble valumes at			
	rilled to 2,511 ft. since last rep		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY October 08, 2013			
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE				
Matthew P Wold	720 929-6993	Regulatory Analyst I				
SIGNATURE N/A		DATE 10/4/2013				

Sundry Number: 46323 API Well Number: 43047529440000

	STATE OF UTAH				FORM 9		
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		6	5.LEASE UTU-01	DESIGNATION AND SERIAL NUMBER:		
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.		CA AGREEMENT NAME: AL BUTTES				
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 1022-3L1BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NU 430475	MBER: 529440000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		ONE NUMBER: 79 720 929-6		and POOL or WILDCAT: AL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2086 FSL 0597 FWL				COUNTY			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	IIP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Me	ridian:	S	STATE: UTAH			
11. CHECK	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR O	THER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION				
П	ACIDIZE		ALTER CASING		CASING REPAIR		
Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING		CHANGE WELL NAME		
SUBSEQUENT REPORT	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE		
Date of Work Completion:	L DEEPEN	☐ F	FRACTURE TREAT		NEW CONSTRUCTION		
	OPERATOR CHANGE	□ F	PLUG AND ABANDON		PLUG BACK		
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	∐ F	RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION		
·	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON		
7	TUBING REPAIR	□ v	/ENT OR FLARE		WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION		APD EXTENSION		
1/2/2014	WILDCAT WELL DETERMINATION		OTHER	OTHE	R:		
	COMPLETED OPERATIONS. Clearly show			oi FOF	umes, etc. Accepted by the Utah Division of I, Gas and Mining R RECORD ONLY anuary 03, 2014		
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUM 720 929 6582	BER	TITLE Regulatory Analyst				
SIGNATURE N/A			DATE 1/2/2014				

RECEIVED: Jan. 02, 2014

Sundry Number: 46516 API Well Number: 43047529440000

	STATE OF UTAH		FORM 9		
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MII		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-01191		
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
Do not use this form for procurrent bottom-hole depth, IFOR PERMIT TO DRILL form	7.UNIT or CA AGREEMENT NAME: NATURAL BUTTES				
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: NBU 1022-3L1BS			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047529440000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 7 3779 720 929-	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2086 FSL 0597 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 03 Township: 10.0S Range: 22.0E Mer	idian: S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
12/31/2013	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	✓ PRODUCTION START OR RESUME				
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	☐ RECOMPLETE DIFFERENT FORMATION		
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
DRILLING REPORT	L TUBING REPAIR	☐ VENT OR FLARE	WATER DISPOSAL		
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
The NBU 1022	completed operations. Clearly show -3L1BS was placed on proc	luction 12/31/2013.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 06, 2014		
NAME (PLEASE PRINT) Doreen Green	PHONE NUME 435 781-9758	BER TITLE Regulatory Analyst II			
SIGNATURE		DATE			
N/A		1/6/2014			

RECEIVED: Jan. 06, 2014

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

	BUREAU OF LAND MANAGEMENT	
\A/E11	COMPLETION OF RECOMPLETION REPORT AND LOC	

	WELL (COMPI	LETION C	R RE	ECON	IPLETI	ON R	EPOF	RT	AND L	OG			ease Serial I TU01191	No.	
1a. Type of	f Well 🔲	Oil Well	☐ Gas	Well	□ D	ry 🔲	Other						6. If	Indian, Allo	ottee or	Tribe Name
b. Type of	b. Type of Completion New Well Work Over Deepen Plug Back Diff. Resvr. Other UTU63047A										ent Name and No.					
2. Name of	Operator					Contact: I	KAY KE	LLY						ease Name a		ell No.
KERR-I	MĊGEE OIL		AS ONSH ©	RMEail: I	kay.ke	lly@anac							N	IBU 1022-3	3L1BS	
	3. Address P.O. BOX 173779 DENVER, CO 82017 Sa. Phone No. (include area code) Ph. 720-929-6000 9. API Well No. 43-047-52944 4. Location of Well (Report location clearly and in accordance with Federal requirements)* 10. Field and Pool, or Exploratory															
4. Location	of Well (Re	port locat	ion clearly ar	id in ac	cordan	ce with Fe	deral rec	luireme	ents)	*				Field and Police IATURAL E		
At surface NWSW 2086FSL 597FWL 39.976502 N Lat, 109.433326 W Lon At top prod interval reported below NWSW 2655FSL 645FWL 11. Sec., T., R., M., or Block and Survey or Area Sec 3 T10S R22E Mer SLB																
		•			55FSL	. 645FVVL	•							County or Pa	arish	13. State
At total 14. Date Sr		SW 263	2FSL 668FV	VL ate T.D	Danah	and and		16 F)oto	Complete	.d			IINTAH	DE VI	UT B, RT, GL)*
07/13/2				/03/20		ieu) & <i>i</i>	A ⊠ 1/2013	Ready to	Prod.	17. 1	513	36 KB	5, K1, GL)
18. Total D	epth:	MD TVD	8961 8896		19. F	Plug Back	T.D.:	MD TVI		890 883		20. De	pth Bri	dge Plug Se		MD FVD
	lectric & Oth R/CCL/TEM		nical Logs R	un (Sub	mit co	py of each)				Was	well core DST run' ctional Su	?	⊠ No i	□ Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing ar	nd Liner Reco	ord (Repe	ort all strings	set in v	vell)						Dire	etronar Ba	110).		Z 103	(Submit unarysis)
Hole Size	Size/G	rade	Wt. (#/ft.)	To (M	^	Bottom (MD)	-	Cemer Depth	nter		f Sks. & f Cement	Slurry (BF		Cement 7	Гор*	Amount Pulled
20.000	14.0	000 STL	36.7	·	0	4	.0	•		71		8				
11.000	8.6	625 J-55	28.0		18	249	1				95	0			0	
7.875	4.	500 I-80	11.6		18	895	51		-		155	0	1300			
							+		\dashv			+				
							+					+				
24. Tubing	Record		•													
	Depth Set (M		acker Depth	(MD)	Siz	e De	oth Set (MD)	Pa	acker Dep	oth (MD)	Size	De	pth Set (MI)	Packer Depth (MD)
2.375 25. Producii		8430				1 2	6. Perfor	ation R	Reco	rd						
	ormation	Τ	Тор		Bott					Interval	Т	Size	Т	No. Holes		Perf. Status
A)	WASA	ATCH	100	5750	200	6709		CITOIL		5750 T	O 6709		360 90 OPEN			
B)	MESAVE	RDE		6966		8840				6966 T	O 8840	0.3	60	186	OPE	N
C)													_			
D) 27. Acid. Fr	racture. Treat	ment. Ce	ment Squeeze	e. Etc.												
	Depth Interva		1	,					An	nount and	Type of	Material				
	57	'50 TO 8	840 PUMP 1	6,960 E	BBLS S	LICKWATI	ER AND	404,08 ⁻	1 LB	S 30/50 M	MESH SAN	ID				
28. Producti	ion - Interval	A														
Date First Produced	Test	Hours Tested	Test Production	Oil BBL		Gas MCF	Water BBL		Oil Gra		Gas	4	Product	on Method		
12/31/2013	Date 01/07/2014	24	- Coduction	7.0	- 1	2330.0	0.0	I `	.011. A	API	Gravi	ty		FLOV	VS FRC	DM WELL
Choke Size	Tbg. Press. Flwg. 1660	Csg. Press	24 Hr. Rate	Oil BBL		Gas MCF	Water BBL		Gas:Oi Ratio	1	Well	Status				
20/64	SI 1000	2341.0	_	7	ľ	2330	0	ľ	catio			PGW				
	tion - Interva															
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Заs ИСF	Water BBL		Oil Gra Corr. A		Gas Gravi	ty	Producti	on Method		
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL		Gas ИСF	Water BBL		Gas:Oi Catio	1	Well	Status	<u> </u>			
	SI	I		ı	ı		ı	- 1								

28b. Pro	duction - Inter	val C									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravit	ty	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well S	Status		
28c. Prod	duction - Inter	val D			<u> </u>	<u> </u>					
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravit	ty	Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well S	Status		
29. Dispo	osition of Gas(D	Sold, used	d for fuel, ven	ted, etc.)	<u> </u>	ı					
Show tests,	mary of Porou v all important including dep ecoveries.	zones of	porosity and c	ontents there	of: Corec tool ope	d intervals an en, flowing ar	d all drill-stem nd shut-in pressures		31. For	mation (Log) Markers	
Formation			Top	Bottom		Descriptions, Contents, etc.				Name Top Meas. I	
32 Addi	tional remarks	(include	nlugging proc	edure).					BIF MA WA	REEN RIVER RD'S NEST AHOGANY ASATCH SAVERDE	1088 1350 2027 4420 6802
The surfa LTC	first 200 ft. of ace hole was	the surfa drilled wi from 490	ace hole was th an 11 in. I 9 ft. to 8951	drilled with bit. DQX cs	g was ru	un from surfa	remainder of ace to 4909 ft.; al well history,				

5. Sundry Notice for plugging and cement verification

6. Core Analysis

7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #232759 Verified by the BLM Well Information System. For KERR-MCGEE OIL AND GAS ONSHORE, sent to the Vernal $\,$

Name (please print)	KAY KELLY	Title SR STAFF REGULATORY SPECIALIST
Signature	(Electronic Submission)	Date 01/22/2014

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fradulent statements or representations as to any matter within its jurisdiction.

				U	S ROC	KIES RE	EGION			
				Operation Summary Report						
Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013										
Project: UTAH-U	JINTAH	Site: NBL	J 1022-03	BL PAD			Rig Name No: SST 57/57, CAPSTAR 310/310			
Event: DRILLIN	G		Start Date	e: 9/2/201	13			End Date: 11/4/2013		
Active Datum: R	RKB @5,136.00usft	(above Mean S	iea	UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
9/14/2013	12:30 - 14:30	2.00	MIRU	01	С	Р	58	RIG DOWN / SKID RIG 20' TO THE NBU 1022-3L1BS, WELL 2 OF 4 / MOVE ON AND RIG UP / HOWCROFT FIELD SERVICES HAD TWO TRUCKS FOR RIG SKID		
	14:30 - 16:30	2.00	MIRU	01	В	Р	58	WELD ON CONDUCTOR PIPE AND NIPPLE UP ROTATING HEAD / RIG UP FLOW LINE		
	16:30 - 17:00	0.50	DRLSUR	23		Р	58	PRESPUD SAFETY MEETING WITH RIG CREW, CLEAN HARBORS CREW, AND SCIENTIFIC CREW / REVIEW DIRECTIONAL PLANS WITH DIRECTIONAL DRILLERS		
	17:00 - 18:00		DRLSUR	06	Α	Р	58	PICK UP 12 1/4" BIT AND 8" MUD MOTOR . TRIP IN HOLE		
	18:00 - 20:00	2.00	DRLSUR	02	В	P	58	DRILL 12 1/4 SURFACE HOLE F/49' TO 200', 151' @ 75.5 FPH WAIT ON BIT = 8 TO 12K ROTORY RPM = 65 / MUD MOTOR RPM = 101 / TOTAL = 166 PUMPING 594 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 670/420 TORQUE ON/OFF = 2000/740 PU = 30 / SO = 28 / ROT = 28 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 NO HOLE ISSUES		
	20:00 - 20:30		DRLSUR	08	Α	Z	209	*** FAILURE: REPAIR HYDRAULIC CYLINDER ON PIPE BOOM		
	20:30 - 21:00		DRLSUR	06	Α	Р	209	TRIP OUT OF HOLE / LAY DOWN 12 1/4" BIT		
	21:00 - 22:30	1.50	DRLSUR	06	Α	Р	209	PICK UP 11" BIT & DIRECTIONAL BHA / SCRIBE MOTOR / TRIP IN HOLE / INSTALL ROTATING RUBBER		
	22:30 - 0:00	1.50	DRLSUR	02	В	Р	209	DRILL 11" SURFACE HOLE F/ 200' TO 313', 113' @ 75.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 101 / TOTAL = 161 PUMPING 594 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 1060/810 TORQUE ON/OFF = 2530/450 PU = 50 / SO = 40 / ROT = 44 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 12' = 12.77% 0.78' HIGH & 0.0' RIGHT OF THE LINE NO HOLE ISSUES		

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 9/15/2013 0:00 - 1:00 1.00 DRLSUR 02 В Ρ 322 DRILL 11" SURFACE HOLE F/ 313' TO 440', 127' @ 127 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 101 / **TOTAL = 161** PUMPING 594 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 1,060/810 TORQUE ON/OFF = 2,530/450 PU = 50 / SO = 40 / ROT = 44 PEAK ON LINE ARCHER OFF LINE MUD WT 8.4 SLID 10' = 8.70% 2.0' HIGH & 2.04' RIGHT OF THE LINE NO HOLE ISSUES 1:00 - 1:30 0.50 **DRLSUR** 07 С 449 CHANGE OUT ROTATING HEAD RUBBERS FROM 6" TO 4" - 6:00 4.50 **DRLSUR** 449 02 В DRILL 11" SURFACE HOLE F/ 440' TO 1,007', 567' @ 126 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 101 / **TOTAL = 161** PUMPING 594 GPM @ 200 SPM STAND PIPE PRESSURE ON/OFF = 1,300/1,040 TORQUE ON/OFF = 2,600/510 PU = 58 / SO = 50 / ROT = 54 PEAK ON LINE ARCHER OFF LINE MUD WT 8 4 SLID 190' = 31 72% 4.19' LOW & 6.50' RIGHT OF THE LINE NO HOLE ISSUES 6:00 - 13:30 7.50 DRLSUR 02 В Р 1016 DRILL 11" SURFACE HOLE F/ 1,007' TO 1,751', 744' @ 99.2 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 85 / TOTAL STAND PIPE PRESSURE ON/OFF = 1,200/930 TORQUE ON/OFF = 2,890/1,100 PU = 72 / SO = 60 / ROT = 64 PEAK ON LINE ARCHER ON LINE @ 1020' WITH 250 CFM AIR **MUD WT 8.4** SLID 34' = 4.19% 7.02' HIGH & 3.10' RIGHT OF THE LINE HOLE ISSUES = LOST CIRCULATION @ 1020' 13:30 - 14:00 0.50 **DRLSUR** 07 Р RIG SERVICE Α

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 14:00 - 18:00 4.00 DRLSUR 02 Ρ 1760 В DRILL 11" SURFACE HOLE F/ 1.751' TO 2.071', 320' @ 80 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 85 / TOTAL = 145PUMPING 445 GPM @ 150 SPM STAND PIPE PRESSURE ON/OFF = 1,200/930 TORQUE ON/OFF = 2,950/980 PU = 82 / SO = 65 / ROT = 75 PEAK ON LINE ARCHER ON LINE @ 1020' WITH 300 CFM AIR MUD WT 8.4 SLID 55' = 21.57% 1.91' HIGH & 0.19' RIGHT OF THE LINE HOLE ISSUES = LOST CIRCULATION @ 1020' 18:00 - 0:00 6.00 **DRLSUR** 02 2080 DRILL 11" SURFACE HOLE F/ 2,071' TO 2,385', 314' @ 52.3 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 85 / TOTAL PUMPING 445 GPM @ 150 SPM STAND PIPE PRESSURE ON/OFF = 1,200/930 TORQUE ON/OFF = 2,950/980 PU = 85 / SO = 68 / ROT = 78 PEAK ON LINE ARCHER ON LINE @ 1020' WITH 300 CFM AIR MUD WT 8.4 SLID 139' = 44.98% 2.88' HIGH & 0.19' RIGHT OF THE LINE HOLE ISSUES = LOST CIRCULATION @ 1020' 9/16/2013 - 2:00 **DRLSUR** 2394 2.00 DRILL 11" SURFACE HOLE F/ 2,385' TO 2,511', 126' @ 63 FPH WOB = 15 TO 20K ROTORY RPM = 60 / MUD MOTOR RPM = 85 / TOTAL PUMPING 445 GPM @ 150 SPM STAND PIPE PRESSURE ON/OFF = 1.200/930 TORQUE ON/OFF = 2.950/980 PU = 88 / SO = 70 / ROT = 80 PEAK ON LINE ARCHER ON LINE @ 1020' WITH 300 CFM AIR **MUD WT 8.4** SLID 15' = 11.81% 3.11' HIGH & 0.83' RIGHT OF THE LINE HOLE ISSUES = LOST CIRCULATION @ 1020' 2:00 - 4:00 2.00 **DRLSUR** 05 2520 CIRCULATE AND CONDITION HOLE, WHILE RECIPRICATING PIPE / PUMPING 445 GPM @ 150 SPM WITH 350 CFM AIR / RETURNS CLEAN COMING. OVER SHAKER / 3 - 400 BBL UPRIGHTS FULL / 3 -400 BBL UPRIGHTS EMPTY / SPOT 130 BBL 10.5 # MUD ON BOTTOM - 7:30 3.50 DRLSUR Ρ 2520 LAY DOWN DRILL PIPE AND BHA 06 D

JIS (2.483.75) OF 8 89° 288 J-85, LT&C CASING WITH CTE FLOAT CUDIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE THE SHOE, 5 CENTRALIZERS SPACED 10 ABOVE THE SHOE, 2 PLAD 8 3 RD COLLARS, AND EVERY THIRD COLLAR TO 2.126* LANDED CASING SHOE AT 2.481* 10:00 - 12:00 2:00 CSGSUR 12 E P 2520 PREJOB SAFETY WITH PRO PETRO CEMENTERS 8 RIG CREW. RAN 200* OF 1* PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 15:00 PS) PMMPED 140 BBLS FRESH WATER CLEARING SHOE MIXED AND PUMPED 30X OF PREMIUM CEMENT WITH 2% CACL2, 2 1/4 LBYSX FLOCELE, 61 4 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SXX. DROP PLUG ON FLY, DISPLACE WITH 15:19 BBL FRESH WATER NO RETURNS THROUGHT OUT JOB. FINAL LIFT OF 285 PSI @ 2 BBL/MINUTE. BUMP PLUG WITH 16:00 PSI: HELD 600 PSI FOR 5 MINUTES. CHECK FLOAT, FLOAT HELD. TOP JOB 8: "PUMP CEMENT TOWN 1* PIPE WITH 15:00 XX PREMIUM CEMENT TOWN 1** PIPE WITH 15:00 XX PRE	API We	ell Number	4304	752944			KIES R	EGION	
Event: DRILLING Event: DRILLING Site Toate 98/22013 End Date: 114/22013 End Date: 114/22013 Event: DRILLING Event: DRILLING End Date: 114/22013 End Date: 114/22013 Event: DRILLING Even: DRILLING Event: DRILLING Even: DRILLING E			Operation Summary Report						
Event: DRILLING Event: DRILLING Site Toate 98/22013 End Date: 114/22013 End Date: 114/22013 Event: DRILLING Event: DRILLING End Date: 114/22013 End Date: 114/22013 Event: DRILLING Even: DRILLING Event: DRILLING Even: DRILLING E	Well: NBU 102	2-3I 1BS GREEN							4/2013
Active Datum: RKB @5,136.00usft (above Mean Sea UWI: NW/SW0110/S122E/370/026/PM/S12080/W01957/D0 Date Time		Site: NBL	J 1022-03	L PAD					
Date Time	Event: DRILLIN	IG		Start Date	e: 9/2/201	3			End Date: 11/4/2013
Start-End (th)	Active Datum: RKB @5,136.00usft (above Mean Sea					V/SW/0/1	0/S/22/E	:/3/0/0/26/PM/S/20	086/W/0/597/0/0
7.30 - 10:00 2.50 CSGSUR 12 C P 2:520 PREJOB SAFETY MEETING WITH RIG CREW, PAS ME JITS (2,483.75) OF 8 5/8°, 28%, J-56, LTAG CASING WITH CTE FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1.0INT ABOVE THE SHOE. 5 CENTRALEED CASING SHOE THE SHOE. 5 CENTRALEED CASING SHOE THE SHOE. 5 CENTRALEED CASING SHOE AND BAFFLE PLATE TO 2.126°. LABOC CASING SHOE AT 2.481°. BAFFLE PLATE TO 2.126°. LABOC CASING SHOE AT 2.481°. BAFFLE PLATE Q 2.435° PREJOB SAFETY WITH PRO PETRO CEMENTERS & RIG GREW. RAN 20° OF 1° PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 1500 PSI PUMPED 140 BBLS FRESH WATER CLEARING SHOE MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AIREAD OF CEMENT MIXED AND DIVIDING 20 BBL SHESH WATER CLEARING SHOE MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AIREAD OF CEMENT MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AIREAD OF CEMENT WITH 15:0 SEX PROMISED FROM THE PLUSH AIREAD OF CEMENT WITH 15:0 SEX PROMISED FROM THE PLUSH AIREAD OF CEMENT WITH 15:0 SEX PROMISED TO PSI FOR 5 MINUTES. DROP PLUG ON FLY, DISPLACE WITH 15:19 BBL FRESH WATER. NO RETURNS THROUGHT OUT JOB. FINAL LIFT OF 295 PSI QS 2 BBLAINNUTE. BUMP PLUG WITH 600 PSI HELD 600 PSI FOR 5 MINUTES. CHECK FLOAT, FLOAT HELD. TOP JOB 8 1: PUMP CEMENT DOWN 1° PIPE WITH 160 SEX PLOADER TO WITH 150 SEX PREMIUM CEMENT WITH 14% CACL2. 2% GR-3, 8 1/4 LBSX FLOCELE 30.7 BLO FS SURF MIXED Q 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS RELEASE RIG Q 12:00, 9/16/2013 WAIT ON CEMENT 2 HRS TOP JOB 8 2: CEMENT DOWN BACK SIDE WITH 175 SEX PREMIUM CEMENT WITH 14% CACL2. 2% GR-3, 8 1/4 LBSX FLOCELE 30.8 BBL OF SURFY MIXED Q 1.58 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT WITH 4% CACL2. 2% GR-3, 8 1/4 LBSX FLOCELE 30.8 BBL OF SURFY MIXED Q 1.58 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT WITH 4% CACL2. 2% GR-3, 8 TOP JOB 8 2: CEMENT DOWN BACK SIDE WITH 175 SEX PREMIUM CEMENT WITH 4% CACL2. 2% GR-3, 8 TOP JOB 8 3: CEMENT DOWN BACK SIDE WITH 175 SEX PREMIUM CEMENT WITH 4% CACL2. 2% GR-3, 8 TOP JOB 8 3: CEMENT DOWN BACK SIDE WITH 175 SEX PREMIUM CEMENT WITH 4%	Date			Phase	Code		P/U		Operation
RIG CREW. RAN 200' OF 1" PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 1500 PSI PUMPED 140 BBLS FRESH WATER CLEARING SHOE MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AHEAD OF CEMENT MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AHEAD OF CEMENT WITH 2% CACL2 & 141 LB/SX FLOCELE. 61.4 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY. DISPLACE WITH 151.9 BBL FRESH WATER. NO RETURNS THROUGHT OUT JOB. FINAL LIFT OF 295 PSI @ 2 BBL/MINUTE. BIMP PLUG WITH 600 PSI. HELD 600 PSI FOR 5 MINUTES. CHECK FLOAT FLOAT FLOAT FLOAT FLOAT 150 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR.3 & 1/4 LB/SX FLOCELE. 30.7 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS NIPPLE DOWN CONDUCTOR PIPE AND CUT OFF CASING RELEASE RIG @ 12:00, 9/16/2013 WAIT ON CEMENT 2 HRS TOP JOB #2. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR.3, & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS NATION CEMENT 2 HRS TOP JOB #2. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM SEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM SEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT 2 HRS TOP JOB #3. CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, &		7:30 - 10:00	2.50			С		2520	WITH CTE FLOAT GUIDE SHOE AND BAFFLE PLATE LOCATED 1 JOINT ABOVE THE SHOE. 5 CENTRALIZERS SPACED 10' ABOVE THE SHOE, 2ND & 3RD COLLARS, AND EVERY THIRD COLLAR TO 2,126'. LANDED CASING SHOE AT 2,481'. BAFFLE PLATE @ 2,435'
@ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT 2 HRS TOP JOB # 4: CEMENT DOWN BACK SIDE WITH 150		10:00 - 12:00	2.00	CSGSUR	12	E	P	2520	PREJOB SAFETY WITH PRO PETRO CEMENTERS & RIG CREW. RAN 200' OF 1" PIPE DOWN BACKSIDE OF CASING TESTED LINES TO 1500 PSI PUMPED 140 BBLS FRESH WATER CLEARING SHOE MIXED AND PUMPED 20 BBL GELLED WATER FLUSH AHEAD OF CEMENT MIXED AND PUMPED 300 SX OF PREMIUM CEMENT WITH 2% CACL2 & 1/4 LB/SX FLOCELE. 61.4 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. DROP PLUG ON FLY. DISPLACE WIITH 151.9 BBL FRESH WATER. NO RETURNS THROUGHT OUT JOB. FINAL LIFT OF 295 PSI @ 2 BBL/MINUTE. BUMP PLUG WITH 600 PSI. HELD 600 PSI FOR 5 MINUTES. CHECK FLOAT. FLOAT HELD. TOP JOB # 1: PUMP CEMENT DOWN 1" PIPE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 30.7 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS NIPPLE DOWN CONDUCTOR PIPE AND CUT OFF CASING RELEASE RIG @ 12:00, 9/16/2013 WAIT ON CEMENT 2 HRS TOP JOB # 2: CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT 2 HRS TOP JOB # 3: CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT 2 HRS TOP JOB # 3: CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT 2 HRS TOP JOB # 3: CEMENT DOWN BACK SIDE WITH 175 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 35.8 BBL OF SLURRY MIXED @ 15.8 PPG WITH YIELD OF 1.15 CF/SX. NO RETURNS WAIT ON CEMENT 2 HRS TOP JOB # 4: CEMENT DOWN BACK SIDE WITH 150 SX PREMIUM CEMENT WITH 4% CACL2, 2% GR-3, & 1/4 LB/SX FLOCELE. 30.7 BBL OF SLURRY MIXED

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 10/30/2013 0:00 - 2:00 2.00 **RDMO** Ρ 01 С RIG DOWN - SKID RIG - RIG UP - HAD TO RELEVEL SKID RAILS DUE TO UNEVEN LOCATION 2:00 - 3:30 MIRU3 Ρ 1.50 14 Α NIPPLE UP BOP'S - CHOKE & KILL LINES / ROTATING HEAD - REPLACE PIPE RAM RUBBERS 3:30 - 7:00 3.50 MIRU3 Р 15 Α HOLD SAFETY MEETING, RUN TEST ASSY, TEST BOP WITH A-1 TESTERS -TEST ANNULAR TO 250 PSI LOW/ 5 MIN 2500 PSI HIGH 10 MIN, PIPE & BLIND RAMS, FLOOR VALVES, IBOP, HCR VALVE, KILL LINE VALVES, TEST BOP'S, CHOKE MANIFOLD TO 250 PSI LOW/ 5 MIN - 5000 PSI HIGH 10 MIN, HOLD ACCUMULATOR FUNCTION TEST, TEST CSG 1500 PSI - 30 MIN, RIG DOWN HAD TO RETIGHTEN CAMERON WELLHEAD & CHOKE LINE FLANGE 7:00 - 8:00 1 00 MIRU3 Α Р SLIP & CUT 102' OF DRILLING LINE 8:00 - 8:30 0.50 MIRU3 В Р INSTALL WEAR BUSHING 14 8:30 - 9:30 1.00 MIRU3 06 PICK UP HUNTING 6 1/2", 1.5 BEND, HR, 7/8 LOBE, 3.5 STAGE 0.21 RPG MUD MOTOR, (SER #6034) MAKE UP REED DSHI616M PDC BIT, DRESSED WITH 6 X 15 JETS, (TFA = 1.035), (SER #A182270) INSTALL MWD TOOL, ORIENT & SCRIBE TOOLS 9:30 - 10:30 1.00 MIRU3 06 Р TIH TO TOC AT 2350' / INSTALL ROTATING RUBBER 10:30 - 12:00 1.50 DRLPRC 02 Ρ DRILL CEMENT & FLOAT EQUIPMENT, CLEAN OUT TO 2489' 12:00 - 15:00 3.00 DRLPRC 02 В Ρ 2520 DIRECTIONAL DRILL FROM/2,520' TO/2,926' = 406' = 135' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 4-8K FT/I BS TORQUE 1500 PSI ON BOTTOM - 1000 PSI OFF BOTTOM PICK UP = 130K - SLACK OFF = 80K - ROTATING = 110K DRAG-20K HOLE IN GOOD SHAPE SLIDE 5.2% OF TIME & 10% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27 15:00 - 15:30 0.50 DRLPRC 07 2926 RIG SERVICE. SERVICE TOP DRIVE, SERVICE DRAW WORKS, CHECK BRAKES AND ADJUST, SERVICE CROWN.

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 15:30 - 16:00 0.50 DRLPRC 02 Ρ 2926 В DIRECTIONAL DRILL FROM/2.926' TO/3.021' = 95' = 190' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER **MINUTE** MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 4-8K FT/LBS TORQUE 1500 PSI ON BOTTOM - 1000 PSI OFF BOTTOM PICK UP = 130K - SLACK OFF = 80K - ROTATING = 110K DRAG-20K HOLE IN GOOD SHAPE SLIDE 5.2% OF TIME & 10% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27 16:00 - 16:30 0.50 **DRLPRC** 08 Ζ 3021 ***FAILURE: RIG EQUIPMENT - (SCR COMMUNICATION FAILURE) REPLACE COMMUNICATION CABLE 16:30 - 0:00 7.50 **DRLPRC** 3021 02 В DIRECTIONAL DRILL FROM/3,021' TO/3,855' = 834' = 111' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 6-8K FT/LBS TORQUE 1600 PSI ON BOTTOM - 1200 PSI OFF BOTTOM PICK UP = 140K - SLACK OFF = 100K - ROTATING = 120K DRAG-20K HOLE IN GOOD SHAPE SLIDE 5.2% OF TIME & 10% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27 0:00 - 6:00 10/31/2013 6.00 **DRLPRV** 02 В 3855 DIRECTIONAL DRILL FROM/3,855' TO/4,541' = 686' = 114' PFR HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 6-8K FT/LBS TORQUE 1600 PSI ON BOTTOM - 1200 PSI OFF BOTTOM PICK UP = 140K - SLACK OFF = 100K - ROTATING = 120K DRAG-20K HOLE IN GOOD SHAPE SLIDE 5.2% OF TIME & 10% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 6:00 - 12:30 6.50 **DRLPRV** 02 В Ρ 4541 DIRECTIONAL DRILL FROM/4,541' TO/5,396' = 855' = 131' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER **MINUTE** MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 6-8K FT/LBS TORQUE 1700 PSI ON BOTTOM - 1300 PSI OFF BOTTOM PICK UP = 160K - SLACK OFF = 120K - ROTATING = 140K DRAG-20K HOLE IN GOOD SHAPE SLIDE 5.2% OF TIME & 10% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27 12:30 - 13:00 0.50 **DRLPRV** 07 5396 RIG SERVICE. SERVICE TOP DRIVE, SERVICE DRAW WORKS, CHECK BRAKES AND ADJUST, SERVICE CROWN. 13:00 - 15:00 2.00 DRLPRV 80 Ζ 5396 ***FAILURE: RIG EQUIPMENT - (SCR COMMUNICATIONS) TROUBLE SHOOT SCR COMMUNICATIONS, REPLACE COMMUNICATION CABLE 15:00 - 18:00 3 00 **DRLPRV** 02 В 5396 DIRECTIONAL DRILL FROM/5,396' TO/5,586' = 190' = 63' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 8-10K FT/LBS TORQUE 1800 PSI ON BOTTOM - 1400 PSI OFF BOTTOM PICK UP = 170K - SLACK OFF = 130K - ROTATING = 150K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 8% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.5 - VISCOSITY = 27

API Well Number: 43047529440000 **US ROCKIES REGION Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 18:00 - 0:00 6.00 **DRLPRV** 02 Ρ 5586 В DIRECTIONAL DRILL FROM/5.586' TO/6.091' = 505' = 84' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER **MINUTE** MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 8-10K FT/LBS TORQUE 1900 PSI ON BOTTOM - 1400 PSI OFF BOTTOM PICK UP = 180K - SLACK OFF = 140K - ROTATING = 160K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 8% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.8 - VISCOSITY = 30 11/1/2013 0:00 - 6:00 6.00 **DRLPRV** 02 В 6091 DIRECTIONAL DRILL FROM/6,091' TO/6,534' = 443' = 73' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 8-10K FT/LBS TORQUE 1900 PSI ON BOTTOM - 1400 PSI OFF BOTTOM PICK UP = 180K - SLACK OFF = 140K - ROTATING = 160K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 8% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.8 - VISCOSITY = 30 6:00 - 8:30 2.50 **DRLPRV** 6534 DIRECTIONAL DRILL FROM/6,534' TO/6,725' = 191' = 76' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 8-10K FT/LBS TORQUE 1900 PSI ON BOTTOM - 1400 PSI OFF BOTTOM PICK UP = 180K - SLACK OFF = 140K - ROTATING = 160K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 8% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 9.0 - VISCOSITY = 30 8:30 - 9:00 0.50 **DRLPRV** 6725 RIG SERVICE, SERVICE TOP DRIVE, SERVICE DRAW WORKS, CHECK BRAKES AND ADJUST, SERVICE CROWN.

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 9:00 - 12:00 3.00 **DRLPRV** 02 Ρ 6725 В DIRECTIONAL DRILL FROM/6.725' TO/6.963' = 238' = 79' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 10-12K FT/LBS TORQUE 2000 PSI ON BOTTOM - 1600 PSI OFF BOTTOM PICK UP = 190K - SLACK OFF = 150K - ROTATING = 170K DRAG-20K HOLE IN GOOD SHAPE SLIDE 0% OF TIME & 0% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 9.1 - VISCOSITY = 30 12:00 - 18:00 6.00 **DRLPRV** 02 6963 DIRECTIONAL DRILL FROM/6,963' TO/7,201' = 238' = 39' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 10-12K FT/LBS TORQUE 2100 PSI ON BOTTOM - 1700 PSI OFF BOTTOM PICK UP = 200K - SLACK OFF = 160K - ROTATING = 180K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 5% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 9.1 - VISCOSITY = 30 18:00 - 0:00 6.00 **DRLPRV** 02 В 7201 DIRECTIONAL DRILL FROM/7,201' TO/7,503' = 302' = 50' PFR HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 10-13K FT/LBS TORQUE 2100 PSI ON BOTTOM - 1700 PSI OFF BOTTOM PICK UP = 200K - SLACK OFF = 160K - ROTATING = 180K DRAG-20K HOLE IN GOOD SHAPE SLIDE 3% OF TIME & 5% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 9.1 - VISCOSITY = 30

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 11/2/2013 0:00 - 6:00 6.00 **DRLPRV** 02 Ρ 7503 В DIRECTIONAL DRILL FROM/7.503' TO/7.772' = 269' = 44' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 10-13K FT/LBS TORQUE 2100 PSI ON BOTTOM - 1700 PSI OFF BOTTOM PICK UP = 200K - SLACK OFF = 160K - ROTATING = 180K DRAG-20K HOLE IN GOOD SHAPE SLIDE 40% OF TIME & 5% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 9.1 - VISCOSITY = 30 6.00 - 13:30 7.50 **DRLPRV** 02 7772 DIRECTIONAL DRILL FROM/7,772' TO/7,962' = 190' = 25' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 12-16K FT/LBS TORQUE 2200 PSI ON BOTTOM - 1900 PSI OFF BOTTOM PICK UP = 220K - SLACK OFF = 180K - ROTATING = 200K DRAG-20K HOLE IN GOOD SHAPE SLIDE 50% OF TIME & 5% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.9 - VISCOSITY = 30 13:30 - 14:00 0.50 **DRLPRV** 07 7962 RIG SERVICE SERVICE TOP DRIVE. SERVICE DRAW WORKS. CHECK BRAKES AND ADJUST. SERVICE CROWN. 14:00 - 18:00 4.00 **DRLPRV** 02 7962 В DIRECTIONAL DRILL FROM/7,962' TO/8,152' = 190' = 47' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 12-16K FT/LBS TORQUE 2200 PSI ON BOTTOM - 1900 PSI OFF BOTTOM PICK UP = 230K - SLACK OFF = 190K - ROTATING = 210K DRAG-20K HOLE IN GOOD SHAPE SLIDE 0% OF TIME & 0% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.9 - VISCOSITY = 30

API Well Number: 43047529440000 **US ROCKIES REGION Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 18:00 - 23:00 5.00 **DRLPRV** 02 Ρ 8152 В DIRECTIONAL DRILL FROM/8.152' TO/8.319' = 167' = 33' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER **MINUTE** MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 12-16K FT/LBS TORQUE 2200 PSI ON BOTTOM - 1900 PSI OFF BOTTOM PICK UP = 240K - SLACK OFF = 200K - ROTATING = 220K DRAG-20K HOLE IN GOOD SHAPE SLIDE 0% OF TIME & 0% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 8.9 - VISCOSITY = 30 23:00 - 0:00 1.00 **DRLPRV** 05 C CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=36, MUD OUT 11.5 PPG VISCOSITY=36, MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS 11/3/2013 0:00 DRLPRV - 2:00 3.00 CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN TOATAL FLUID DISPLACEMENT TO KILL WELL FOR **BIT TRIP** USED 300 BBLS OF 10.8 PPG MUD FROM MUD PLANT SAVED 2 1/2 HOURS OF MIX TIME FINISHED WITH 800 BBLS OF 11.8 PPG MUD IN STORE MUD IN 11.5 PPG VISCOSITY=34, MUD OUT 11.5 PPG VISCOSITY=34. MUD COMING OVER SHAKERS IS CLEAN. BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS 2:00 - 7:00 5.00 DRLPRV PUMP 40 BBL DRY JOB, BLOW DOWN TOP DRIVE, TRIP OUT OF HOLE TO CHANGE BIT & MOTOR, STRAIGHT PULL OFF BTM @ 280K - NO TIGHT HOLF. LAY DOWN DIRECTIONAL TOOLS, LAY DOWN MUD MOTOR, BIT, HOLE TOOK PROPER FILL WITH NO GAINS NO LOSSES NO FLOW ON FLOW CHECKS

API Well Number: 43047529440000 **US ROCKIES REGION Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 7:00 - 9:30 2.50 **DRLPRV** Ρ 06 Α PICK UP HUNTING- 6 1/2". 1.5 BEND. 7/8 LOBE. 3.5 STAGE, .21 RPG MUD MOTOR, (SERIAL #6316) MAKE UP SECURITY MM65M PDC BIT, DRESSED WITH 6 X 15 JETS, (TFA = 1.035), SERIAL #12232818 INSTALL MWD TOOL, ORIENT & SCRIBE TOOLS TRIP IN HOLE TO DRILL TO TOATAL DEPTH. 9:30 - 12:00 2.50 DRLPRV 03 С REAM LAST 8 STANDS TO BOTTOM DUE TO UNDER GUAGE BIT, 12:00 - 18:00 Р 6.00 DRLPRV 02 R 8319 DIRECTIONAL DRILL FROM/8,319' TO/8,723' = 404' = 67' PER HOUR 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 12-16K FT/LBS TORQUE 2200 PSI ON BOTTOM - 1900 PSI OFF BOTTOM PICK UP = 240K - SLACK OFF = 200K - ROTATING = 220K DRAG-20K HOLE IN GOOD SHAPE SLIDE 0% OF TIME & 0% OF FOOTAGE BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING MUD CLEANER - RUNNING MUD WEIGHT = 11.5 - VISCOSITY = 34 18:00 - 20:30 2.50 **DRLPRV** 02 В Р 8723 DIRECTIONAL DRILL FROM/8,723' TO/8,961' = 238' = 95' PER HOUR, TD@ 11/03/2013 20:30 18-24K WEIGHT ON BIT 105 STROKES PER MINUTE = 515 GALLONS PER MINUTE MOTOR = 108 RPM, 40-60 RPM ON TOP DRIVE, TOTAL RPM=148-168 12-16K FT/LBS TORQUE 2200 PSI ON BOTTOM - 1900 PSI OFF BOTTOM PICK UP = 250K - SLACK OFF = 210K - ROTATING = 230K DRAG-20K HOLE IN GOOD SHAPE SLIDE 0% OF TIME & 0% OF FOOTAGE **BOS DEWATERING - RUNNING CENTRIFUGE - RUNNING** MUD CLEANER - RUNNING MUD WEIGHT = 11.6 - VISCOSITY = 34 20:30 - 21:30 1.00 DRLPRV 05 C CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=36, MUD OUT 11.5 PPG VISCOSITY=36 MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES PUMPED 40 BBL CAL CARB SWEEPS WITH WALL NUT AND, MULTI SEAL, NO FLOW ON FLOW CHECKS

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013 Site: NBU 1022-03L PAD Project: UTAH-UINTAH Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 21:30 - 22:30 1.00 **DRLPRV** 06 Ρ Ε TEN STAND WIPER TRIP BACK TO 8.000'. NO TIGHT HOLE. HOLE TOOK PROPER FILL WITH NO GAINS AND NO LOSSES NO FLOW ON FLOW CHECKS 22:30 - 23:30 1.00 **DRLPRV** 05 CONDITION MUD & CIRCULATE, WORKING DRILL STRING UP AND DOWN, MUD IN 11.5 PPG VISCOSITY=36, MUD OUT 11.5 PPG VISCOSITY=36 MUD COMING OVER SHAKERS IS CLEAN, BUILD 40 BBL 13.5# DRY JOB CIRCULATE WITH NO GAINS AND NO LOSSES NO FLOW ON FLOW CHECKS 23:30 - 0:00 0.50 DRLPRV Р 06 D HOLD SAFETY MEETING WITH LAY DOWN CREW FROM WYOMING CASING LAY DOWN DRILL STRING. 11/4/2013 0:00 - 8:00 8.00 **DRLPRV** 06 D Ρ PUMP 40 BBL DRY JOB, BLOW DOWN TOP DRIVE, TRIP OUT OF HOLE LAYING DOWN DRILL STRING, STRAIGHT PULL OFF BTM @ 280K - NO TIGHT LAY DOWN DIRECTIONAL TOOLS, LAY DOWN MUD MOTOR, BIT. HOLE TOOK PROPER FILL WITH NO GAINS NO LOSSES NO FLOW ON FLOW CHECKS 8:00 - 8:30 0.50 DRLPRV **PULL WEAR BUSHING** 14 8:30 Р - 9:30 1.00 **CSGPRO** 12 HOLD SAFETY MEETING / RIG UP WYOMING CASING SERVICE CASING EQUIPMENT 9:30 - 14:30 5.00 **CSGPRO** 12 С Р WYOMING CASING SERVICE, (INSPECT FLOAT **EQUIPMENT**) **RUN 4.5 LTC 8 ROUND WITHOUT TORQUE TURN** TORQUE TURN HAND LATE PER KENNY GATHINGS MAKE UP 4.5" K-55 LTC DRILLING & COMPLETION TECH. FLOAT SHOE ON SHOE JOINT WITH THREAD MAKE UP 4.5" K-55 FLOAT COLLAR WITH THREAD LOCK ON TOP OF SHOE JOINT. RUN CENTRALIZERS ON FIRST 3 JOINTS AND **EVERY THIRD JOINT FOR TOTAL OF 15** CENTRALIZERS. BREAK CIRCULATION @ 50', 968', 5000'. NO PROBLEMS WITH FLOAT SHOE OR COLLAR. RUN A TOTAL OF 91 JOINTS OF 4 1/2", 11.6#. I-80, LT&C CASING + 1 MARKER JOINT RIG UP TORQUE TURN, PERFORM DUMP TEST. MAKE UP DQX CROSS OVER JOINT AND, RUN A TOTAL OF 111 JOINTS OF 4 1/2", 11.6#, I-80/ DQX, CASING, + 1 CROSSOVER + 1 PUP JOINT RUN A TOTAL OF 205 JOINTS OF CASING TO **BOTTOM WITH NO PROBLEMS** SET FLOAT SHOE @ 8,951.03', SET TOP FLOAT COLLAR @ 8,903.77', SET TOP OF MESAVERDE MARKER JOINT @ 6,762.61'

API Well Number: 43047529440000 US ROCKIES REGION **Operation Summary Report** Spud Date: 9/14/2013 Well: NBU 1022-3L1BS GREEN Project: UTAH-UINTAH Site: NBU 1022-03L PAD Rig Name No: SST 57/57, CAPSTAR 310/310 **Event: DRILLING** End Date: 11/4/2013 Start Date: 9/2/2013 UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Active Datum: RKB @5,136.00usft (above Mean Sea Date P/U Time Duration Phase Code Sub MD From Operation Start-End (hr) Code (usft) 14:30 - 17:00 2.50 **CSGPRO** 05 D Ρ CIRCULATE HOLE CLEAN RIG DOWN WYOMING CASING SERVICE CASING HOLD SAFETY MEETING, RIG UP BAKER HUGHES CEMENTING EQUIPMENT 17:00 - 20:30 3.50 **CSGPRO** 12 Ε HOLD SAFETY MEETING CEMENT WITH BAKER HUGHES TEST LINES TO 5,000 PSI, DROP BOTTOM PLUG, PUMP 25 BBLS H2O 8.3 PPG SPACER, MIX & PUMP 169 BBLS LEAD CEMENT 480 SACKS WITH CLASS G CEMENT, WITH PLII +6%GELL +5#skKS +.4%FL52 +.2%SMS +.4% R-3+5#/skSF + 1/4#skCF @ 12.5 PPG WITH 1.98 YIELD, MIX & PUMP 251 BBLS TAIL CEMENT 1,070 SACKS, WITH CLASS G CEMENT, WITH 50/50 poz+2%gell+0.55% R-3 + 10%salt+5#/blnd S.F. +.75%SMS @ 14.3 PPG WITH 1.32 YIELD, WASH UP LINES & DROP THE TOP PLUG DISPLACE WITH 138.5 BBLS H2O @ 8.3 PPG, WITH 6 GALLONS CLAY CARE, CLAY TREAT-2C FINAL LIFT PRESSURE PRIOR TO BUMPING PLUG 1,918 PSI BUMP PLUG WITH 2,670 PSI GOOD RETURNS THROUGHOUT JOB UP TO 113 BBLS OF DISPLACEMENT AND LOST PARTIAL **RETURNS** NO CEMENT OR SPACER BACK TO SURFACE TOP OF LEAD CEMENT @ 1,800' TOP OF TAIL CEMENT@ 3,800' RIG DOWN CEMENTING EQUIPMENT 20:30 - 22:00 1.50 **CSGPRO** LAY DOWN LANDING JOINT / INSTALL & TEST PACK 24 OFF 5000 PSI, 10 MINUTES 22:00 - 0:00 2.00 Ρ **CSGPRO** 14 Α NIPPLE DOWN BOP'S / CLEAN MUD TANKS / RELEASE RIG @ 11/04/2013 24:00 HOURS

General

Customer Information 7:

Company	US ROCKIES REGION
Representative	
Address	

Well/Wellbore Information 1.2

				API
			US ROCK	US ROCKIES REGION A
				11
General				Num
Customer Information				ber
Company	US ROCKIES REGION			: 4
Representative				30
Address				04
Well/Wellbore Information	tion			7529
				94
Well	NBU 1022-3L1BS GREEN	Wellbore No.	НО	40
Well Name	NBU 1022-3L1BS	Wellbore Name	NBU 1022-3L1BS	00
Report No.	1	Report Date	12/9/2013	00
Project	UTAH-UINTAH	Site	NBU 1022-03L PAD)
Rig Name/No.		Event	COMPLETION	
Start Date	12/30/2013	End Date	12/31/2013	
Spud Date	9/14/2013	Active Datum	RKB @5,136.00usft (above Mean Sea Level)	
UWI	NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0			

General ..

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

Summary

1.5

Initial Conditions **4**.

Fluid Type		Fluid Density	Gross Interval	5,750.0 (usft)-8,840.0 (usft Start Date/Time	Start Date/Time	12/9/2013 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	73	73 End Date/Time	12/9/2013 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	276	276 Net Perforation Interval	90.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.07 (shot/ft)	3.07 (shot/ft) Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

Intervals

Perforated Interval 2.1

Date	Formation/	@TOO	CCL-T	MD Top	CCL@ CCL-T MD Top MD Base	Shot	Misfires/	Diamete	Diamete Carr Type /Stage No		Phasing	Phasing Charge Desc /Charge	Charge	Reason	Misrur
	Reservoir	(nst)	တ	(nstt) (nstt)	(nstt)	Density	Add. Shot	L		Size	(C)	Manufacturer	Weight		
			(nstt)			(shot/ft)		(ii)		(in)			(gram)		
12/9/2013	2/9/2013 WASATCH/			5,750.0	5,754.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00 F	23.00 PRODUCTIO	
12:00AM														7	

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OpenWells

Perforated Interval (Continued) 2.1

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2.1 Pe	Perforated Interval (Continued)	Continue	(þé													ll Nu
Date	Formation/ Reservoir	(nsft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun	ımber
12/9/2013 12:00AM	WASATCH/			5,785.0	5,789.0			0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		: 4
6	WASATCH/			5,950.0	5,954.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		1304
6	WASATCH/			6,110.0	6,114.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		475
6	WASATCH/			6,184.0	6,185.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		294
12/9/2013 12:00AM	WASATCH/			6,202.0	6,203.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		400
12/9/2013 12:00AM	WASATCH/			6,244.0	6,245.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		00
m	WASATCH/			6,314.0	6,315.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
~	WASATCH/			6,372.0	6,373.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,402.0	6,403.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
8	WASATCH/			6,421.0	6,422.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,554.0	6,555.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,583.0	6,584.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,598.0	6,599.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,611.0	6,612.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,627.0	6,628.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,661.0	6,662.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	WASATCH/			6,708.0	6,709.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			6,966.0	6,967.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			6,991.0	6,992.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,012.0	7,013.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,058.0	7,059.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		

January 20, 2014 at 1:33 pm

Perforated Interval (Continued)

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ď	Perforated Interval (Continued)	(Continu	(þ€													ll Nu
Date	Formation/ Reservoir	(Jysn)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun	ımber
12/9/2013 12:00AM	MESAVERDE/			7,083.0	7,084.0	ı		0.360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		: 4
12/9/2013 12:00AM	MESAVERDE/			7,151.0	7,152.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		304
12/9/2013 12:00AM	MESAVERDE/			7,230.0	7,231.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		475
12/9/2013 12:00AM	MESAVERDE/			7,366.0	7,368.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		294
12/9/2013 12:00AM	MESAVERDE/			7,454.0	7,456.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		400
m	MESAVERDE/			7,524.0	7,526.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		00
12/9/2013 12:00AM	MESAVERDE/			7,546.0	7,548.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,606.0	7,607.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,641.0	7,642.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,678.0	7,679.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,747.0	7,748.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,759.0	7,760.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,802.0	7,803.0	4.00		0.360 EXP/	EXP/	3.375	90.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,853.0	7,854.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,875.0	7,876.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,901.0	7,902.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			7,939.0	7,940.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			8,015.0	8,016.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			8,041.0	8,042.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
	MESAVERDE/			8,075.0	8,076.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		
12/9/2013 12:00AM	MESAVERDE/			8,124.0	8,125.0	3.00		0.360 EXP/	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N		

OpenWells

Perforated Interval (Continued)

													٦	US ROCKIES REGION	
2.1 Pe	Perforated Interval (Continued)	inued)													I INC
Date	Formation/ CCL@ Reservoir (usft)	(usft)			MD Base S (usft) De (sl	Shot Mis Density Add (shot/ft)	Misfires/ C Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	umber
12/9/2013 12:00AM	MESAVERDE/	<u> </u>		8,142.0	8,143.0	3.00		360	EXP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,1	8,156.0	8,157.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,1	8,172.0	8,173.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	475
12/9/2013 12:00AM	MESAVERDE/		8,1	8,195.0	8,196.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	294
12/9/2013 12:00AM	MESAVERDE/		8,2	8,222.0	8,223.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	400
12/9/2013 12:00AM	MESAVERDE/		8,2	8,235.0	8,236.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,2	8,242.0	8,243.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,2	8,276.0	8,277.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,2	8,298.0	8,299.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,3	8,316.0	8,317.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,3	8,354.0	8,355.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,3	8,370.0	8,371.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,3	8,385.0	8,386.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,3	8,398.0	8,399.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,4	8,411.0	8,412.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,4	8,445.0	8,446.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,4	8,458.0	8,459.0	3.00		0.360 EXP/	XP/	3.375	120.00		23.00	23.00 PRODUCTIO	
12/9/2013 12:00AM	MESAVERDE/		8,4	8,474.0	8,475.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,4	8,498.0	8,499.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,5	8,523.0	8,524.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	
12/9/2013 12:00AM	MESAVERDE/		8,5	8,550.0	8,551.0	3.00		0.360 EXP/	:XP/	3.375	120.00		23.00	23.00 PRODUCTIO N	

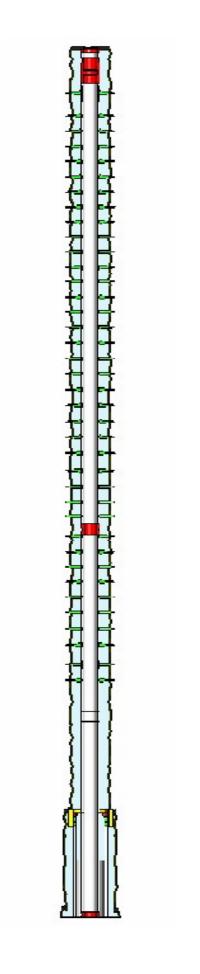
January 20, 2014 at 1:33 pm

Perforated Interval (Continued)

API Well	Nu	mber	: 4	304	1752	294	400	00			
REGION		Misrun									
US ROCKIES REGION		Reason	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N	23.00 PRODUCTIO N
		Charge Weight (gram)	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00	23.00
		Charge Desc /Charge Manufacturer									
		Phasing (°)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
		Carr Size (in)	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375	3.375
		Carr Type /Stage No	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/	EXP/
		Diamete r (in)	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/	0.360 EXP/
		Misfires/ Add. Shot									
		Shot Density (shot/ft)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		MD Base (usft)	8,564.0	8,573.0	8,616.0	8,640.0	8,660.0	8,685.0	8,734.0	8,823.0	8,840.0
		MD Top (usft)	8,563.0	8,572.0	8,615.0	8,639.0	8,659.0	8,684.0	8,733.0	8,822.0	8,838.0
	ed)	CCL-T S (usft)									
	(Continu	(nstt)									
	Perforated Interval (Continued)	Formation/ Reservoir	12/9/2013 MESAVERDE/ 12:00AM	MESAVERDE/	MESAVERDE/	MESAVERDE/	12/9/2013 MESAVERDE/ 12:00AM	MESAVERDE/	MESAVERDE/	MESAVERDE/	12/9/2013 MESAVERDE/ 12:00AM
	2.1 P	Date	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM	12/9/2013 12:00AM

Plots

Wellbore Schematic 3.1



						KIES R	EGION ary Report	
Well: NBU 1022-	3L1BS GREEN						Spud Date: 9/1	4/2013
Project: UTAH-U	INTAH		Site: NBU	1022-03	L PAD			Rig Name No:
Event: COMPLE	TION		Start Date	e: 12/30/2	.013			End Date: 12/31/2013
Active Datum: R Level)	KB @5,136.00usft (al	oove Mean S	ea	UWI: NV	N/SW/0/1	10/S/22/E	/3/0/0/26/PM/S/20	986/W/0/597/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
11/13/2013	-							
12/2/2013	9:30 - 10:00	0.50	SUBSPR	52	Е	Р		0 PSI ON SURFACE CASING, RU HOT OILER FILLED SURFACE CSG WITH 2 BBLS H20, PRESSURED TO 1200 PSI HELD OK, INSTALL POP OFF ASSEMBLEY
12/4/2013	11:00 - 12:00	1.00	SUBSPR	52	В	P		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. PRESSURE TEST CSG & FRAC VALVES 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST -42 PSI. NO COMMUNICATION OR MIGRATION WITH SURFACE CSG BLEED OFF PSI. PRESSURE TEST 8 5/8 X 4 1/2 TO 1200 PSI HELD FOR 5 MIN LOST -0 PSI, BLED PSI OFF, REINSTALLED POP OFF SWIFN NO PRESSURE ON SURFACE CASING FILLED SURFACE WITH 2 BBLS H2O
12/6/2013	7:30 - 7:45	0.25	FRAC	48		Р		HSM,JSA
	8:00 - 15:00	7.00	FRAC	37	С	Р		MIRU CASEDHOLE SOLUTIONS PERF 1ST SHOOT AS PER DESIGN W/O FRAC
12/9/2013	6:30 - 6:45	0.25	FRAC	48		Р		HSM,JSA
	7:00 - 10:30	3.50	FRAC	46	Е	Р		THAWING OUT BLENDER, CHANGING OUT CHICKSAN ON PUMP, CHANGE OUT FLANGE ON SHOCK TUBE ON PUMP, PRIME PUMPS CHANGE OUT UNION RUBBERS ON 2 CHICKSANS AND CHECK VALVE, ATTEMPT TO PRESSURE TEST HAD 3 PUMPS THAT NEED PACKING REPLACED.
	11:00 - 11:20	0.33	FRAC	52	В	Р		PRESSURE TEST FRAC LINES TO 8202 PSI LOST 1100 PSI IN 15 MINUTES NO SURFACE LEAKS.

API We	ll Number	4304	75294			KIES RE	EGION	
				Opera	tion S	umma	ry Report	
Well: NBU 1022-	3L1BS GREEN						Spud Date: 9/1	14/2013
Project: UTAH-U	INTAH		Site: NBI	J 1022-03	L PAD			Rig Name No:
Event: COMPLE	TION		Start Dat	te: 12/30/2	2013			End Date: 12/31/2013
Active Datum: RI	KB @5,136.00usft (ab	ove Mean Se	ea	UWI: N\	N/SW/0/1	10/S/22/E/	3/0/0/26/PM/S/2	086/W/0/597/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	11:28 - 17:00	5.53	FRAC	36	Н	P		REFER TO STIMULATION PJR FOR FLUID, SAND AND CHEMICAL VOLUMES, ALL STAGES WERE PERFORATED ACCORDING TO PERF RECORD IN OPEN WELLS, ALL STAGES WERE STIMULATED TO VENDOR POST JOB REPORT. ALL PLUGS ARE HALIBURTON 8K CBPS FRAC STG #1] WHP=1618#, BRK DN PERFS=4007#, @=4.2 BPM, INTIAL ISIP=2717#, FG=.75, FINAL ISIP=2616#, FG=.74, SET PLUG & PERFORATE STG #2 FRAC STG #2] WHP=2298#, BRK DN PERFS=2973#, @=4.5 BPM, INTIAL ISIP=2402#, FG=.72, FINAL ISIP=2639#, FG=.75, SET PLUG & PERFORATE STG #3
10/10/2012	6:30 6:45	0.25	FDAC	40		Р		SWIFN W/O FRAC
12/10/2013	6:30 - 6:45 7:00 - 17:00	0.25	FRAC FRAC	48 36	Н	P		HSM, JSA FRAC STG #3] WHP=2078#, BRK DN PERFS=3109#, @=4.0 BPM, INTIAL ISIP=2448#, FG=.73, FINAL ISIP=2766#, FG=.77, SET PLUG & PERFORATE STG #4 FRAC STG #4] WHP=2309#, BRK DN PERFS=2936#, @=5.6 BPM, INTIAL ISIP=2575#, FG=.75, FINAL ISIP=2706#, FG=.77, SET PLUG PERFORATE STG #5 FRAC STG #5] WHP=2391#, BRK DN PERFS=3571#, @=4.0 BPM, INTIAL ISIP=2019#, FG=.69, FINAL ISIP=2379#, FG=.74, SET PLUG AND PERFORATE STG #6 FRAC STG #6] WHP=2072#, BRK DN PERFS=3249#, @=4.8 BPM, INTIAL ISIP=2547#, FG=.77, FINAL ISIP=2330#, FG=.74, SET PLUG AND PERFORATE STG #7
12/11/2013	6:30 - 6:45 8:20 - 9:20	0.25 1.00	FRAC FRAC	48 46	E	P P		SWIFN W/O FRAC HSM,JSA REPACK PUMP# 3

API We	ell Number	÷ 4304	752944			KIES RE	EGION	
							ry Report	
Well: NBU 1022	-3L1BS GREEN						Spud Date: 9/	14/2013
Project: UTAH-U	JINTAH		Site: NBL	J 1022-03	L PAD		<u> </u>	Rig Name No:
Event: COMPLE	ETION		Start Dat	e: 12/30/2	2013			End Date: 12/31/2013
Active Datum: R	RKB @5,136.00usft (al	bove Mean S	-	1		10/S/22/E/	3/0/0/26/PM/S/2	086/W/0/597/0/0
_evel)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:20 - 17:00	7.67	FRAC	36	Н	Р		FRAC STG #7] WHP=1528#, BRK DN PERFS=2165#, @=5.8 BPM, INTIAL ISIP=1718#, FG=.67, FINAL ISIP=2391#, FG=.76, SET PLUG AND PERFORATE STG #8
								FRAC STG #8] WHP=763#, BRK DN PERFS=2108#, @=3.7 BPM, INTIAL ISIP=930#, FG=.57, FINAL ISIP=2287#, FG=.76,
								SET PLUG AND PERFORATE STG #9
								FRAC STG #9] WHP=369#, BRK DN PERFS=1636#, @=3.7 BPM, INTIAL ISIP=1050#, FG=.60, FINAL ISIP=2643#, FG=.84,
								SET PLUG AND PERFORATE STG #10
								SWIFN W/O FRAC
12/12/2013	7:15 - 7:30	0.25	FRAC	48		Р		HSM,JSA
	7:45 - 12:10	4.42	FRAC	36	Н	Р		FRAC STG #10] WHP=1274#, BRK DN PERFS=2829#, @=4.0 BPM, INTIAL ISIP=1594#, FG=.69, FINAL ISIP=1742#, FG=.72,
								SET PLUG AND PERFORATE STG #11
								FRAC STG #11] WHP=1360#, BRK DN PERFS=1575#, @=4.5 BPM, INTIAL ISIP=1366#, FG=.67, FINAL ISIP=1508#, FG=.69,
								SET PLUG AND PERFORATE STG #12
								FRAC STG #12] WHP=1073#, BRK DN PERFS=3121#, @=3.7 BPM, INTIAL ISIP=1345#, FG=.67, FINAL ISIP=1409#, FG=.68,
								SET TOP KILL
								TOTAL BBLS=16960 TOTAL SAND=404,081
12/30/2013	7:00 - 7:15	0.25	DRLOUT	48		Р		JSA= LIFTING
	7:15 - 17:00	9.75	DRLOUT	30		Р		RD RIG ON NBU 1022-3L1AS MOVE RU ON 3L1BS ND W/H NU BOPS RU FLOOR & TUB EQUIP PU POBS PKG TALLY & PU TUBING RIH TAG 1ST CBP @ 5700' RU DRLG EQUIP PREP TO D/O SIW SDFN
12/31/2013	7:00 - 7:15	0.25	DRLOUT	48		Р		JSA=

API We	ll Numbe	er: 4304'	752944			KIES R	EGION	
				Opera	tion S	Summa	ry Report	
Well: NBU 1022-	Well: NBU 1022-3L1BS GREEN						Spud Date: 9/14	4/2013
Project: UTAH-U	INTAH		Site: NBL	1022-03	L PAD			Rig Name No:
Event: COMPLE	TION		Start Date	e: 12/30/2	2013			End Date: 12/31/2013
Active Datum: RI	KB @5,136.00us	ft (above Mean Se	ea	UWI: N\	N/SW/0/	10/S/22/E	3/0/0/26/PM/S/20	86/W/0/597/0/0
Date	Time Start-End	Duration	Phase	Code	Sub	P/U	MD From	Operation
	7:15 - 17:0	(hr) 0 9.75	DRLOUT	30	Code	Р	(usft)	EST CIRC TEST BOPS TO 3000 PSI DRILL THRU 1ST
								CBP PLUG #1] DRILL THRU HALLI 8K CBP @ 5700' IN 9 MIN W/ 0 INCREASE
								PLUG #2] CONTINUE TO RIH TAG SAND @ 5804' (15' FILL) C/O & DRILL THRU HALLI 8K CBP @ 5819' IN 6 MIN W/ 6 PSI INCREASE
								PLUG #3] CONTINUE TO RIH TAG SAND @ 6124' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6144' IN 7 MIN W/0 PSI INCREASE
								PLUG #4] CONTINUE TO RIH TAG SAND @ 6422' (30' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6452' IN 5 MIN W/ 100 PSI INCREASE
								PLUG #5] CONTINUE TO RIH TAG SAND @ 6722' (17' FILL) C/O & DRILL THRU HALLI 8K CBP @ 6739' IN 7 MIN W/ 200 PSI INCREASE
								PLUG #6] CONTINUE TO RIH TAG SAND @ 7228' (35' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7261' IN 8 MIN W/300 PSI INCREASE
								PLUG #7] CONTINUE TO RIH TAG SAND @ 7558'(20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7578' IN 7 MIN W/200 PSI INCREASE
								PLUG #8] CONTINUE TO RIH TAG SAND @ 7808' (25' FILL) C/O & DRILL THRU HALLI 8K CBP @ 7833' IN 10 MIN W/200 PSI INCREASE
								PLUG #9] CONTINUE TO RIH TAG SAND @8091' (15' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8106' IN 6 MIN W/ 200 PSI INCREASE
								PLUG #10] CONTINUE TO RIH TAG SAND @8249' (17' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8266' IN 6 MIN W/200 PSI INCREASE
								PLUG #11] CONTINUE TO RIH TAG SAND @ 8415' (20' FILL) C/O & DRILL THRU HALLI 8K CBP @ 8435' IN 7 MIN W/ 400 PSI INCREASE
								PLUG #12] CONTINUE TO RIH TAG SAND @ 8578' (258 FILL) C/O & DRILL THRU HALLI 8K CBP @ 8603' IN 6 MIN W/300 PSI INCREASE
								PBTD] CONTINUE TO RIH TAG SAND @8864' (40' FILL) C/O TO PBTD @ 8904' CIRC CLEAN POOH LD 16 JNTS LAND TUB ON HNGR W/ 266 JNTS EOT @ 8429.78' RD DRLNG EQUIP RD FLOOR & TUB EQUIP ND BOPS NU WELL HEAD DROP BALL NU & TEST FLOW LINE PUMP OFF BIT @ 1200 PSI SIW TURN WELL OVER TO FBC SD

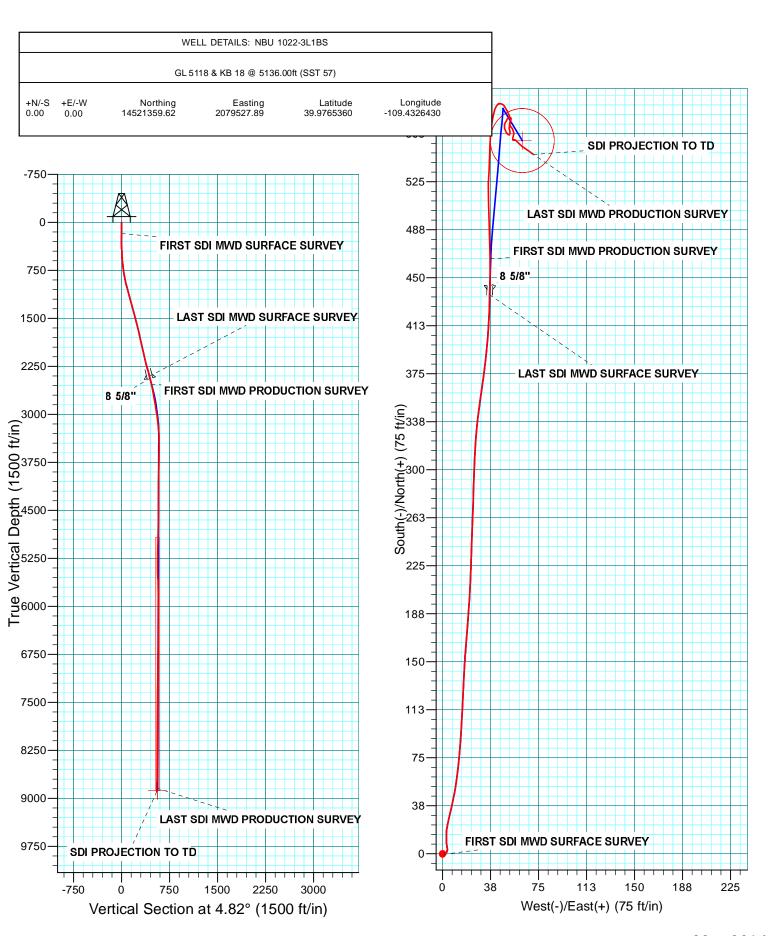
API Well Number: 43047529440000											
	US ROCKIES REGION										
				Opera	tion S	umma	ry Report				
Well: NBU 1022-3L1BS GREEN Spud Date: 9/14/2013											
Project: UTAH-UI	NTAH		Site: NBL	J 1022-03	L PAD			Rig Name No:			
Event: COMPLE	Event: COMPLETION Start Date							End Date: 12/31/2013			
Active Datum: RKB @5,136.00usft (above Mean Sea UWI: NW/SW/0/10/S/22/E/3/0/0/26/PM/S/2086/W/0/597/0/0 Level)											
Date	Time Start-End	Duration (hr)	Phase	se Code Sub P/U MD From Operation Code (usft)					ion		
								TUBING DETAIL			
								K.B			
								HNGR 116 JNST 2-3/8" L-80			
								6'X2-3/8" L-80 PUP			
								150 JNTS 2-3/8" J-55			
								POBS			
								EOT			
								TOTAL FLUID PUMPED=	16960 BBLS		
								RIG REC=			
								LEFT TO REC=	13960 BBLS		



Well: NBU 1022-3L1BS



Wellbore: OH



API Well Number: 43047529440000



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N NBU 1022-3L PAD NBU 1022-3L1BS

OH

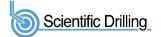
Design: OH

Standard Survey Report

07 November, 2013



API Well Number: 43047529440000



Scientific Drilling

Survey Report



US ROCKIES REGION PLANNING Company:

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: NBU 1022-3L PAD NBU 1022-3L1BS Well:

Wellbore: OH Design: ОН

Geo Datum:

Map Zone:

Site

Local Co-ordinate Reference:

Well NBU 1022-3L1BS TVD Reference: GL 5118 & KB 18 @ 5136.00ft (SST 57)

GL 5118 & KB 18 @ 5136.00ft (SST 57) **MD Reference:**

North Reference:

Minimum Curvature **Survey Calculation Method:** Database: Denver Sales Office

UTAH - UTM (feet), NAD27, Zone 12N Project

Universal Transverse Mercator (US Survey Feet) Map System:

> NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W)

System Datum: Mean Sea Level

NBU 1022-3L PAD, SECTION 3 T10S R22E

Northing: 14,521,359.42 usft 39.9765340 Site Position: Latitude: From: Lat/Long Easting: 2,079,557.87 usft Longitude: -109.4325360 **Position Uncertainty:** 0.00 ft Slot Radius: 13.200 in Grid Convergence: 1.01°

Well NBU 1022-3L1BS, 2086 FSL 597 FWL **Well Position** +N/-S 0.00 ft Northing: 14,521,359.62 usft Latitude: 39.9765360 +E/-W 0.00 ft Easting: 2,079,527.88 usft Longitude: -109.4326430 0.00 ft Wellhead Elevation: ft **Ground Level:** 5,118.00 ft **Position Uncertainty**

ОН Wellbore **Model Name** Declination Dip Angle Field Strength Magnetics Sample Date (°) (°) (nT) BGGM2013 9/3/2013 10.84 65.80 52,027

ОН Design Audit Notes: Version: 1.0 ACTUAL Tie On Depth: 0.00 Phase: Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 4.82

11/7/2013 Survey Program Date From Tο (ft) Survey (Wellbore) **Tool Name** Description 9.00 2,462.00 Survey #1 SDI MWD SURFACE (OH) SDI MWD SDI MWD - Standard ver 1.0.1 2,586.00 8,961.00 Survey #2 SDI MWD PRODUCTION (OH) SDI MWD SDI MWD - Standard ver 1.0.1

Survey Measured Vertical Vertical Dogleg Build Turn Depth Section Depth Inclination Azimuth +N/-S +E/-W Rate Rate Rate (°/100usft) (°/100usft) (°/100usft) (ft) (°) (°) (ft) (ft) (ft) (ft) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 9.00 0.00 0.00 9.00 0.00 0.00 0.00 0.00 0.00 0.00 0.53 114.28 177.00 -0.32 0.71 -0.26 0.32 0.32 0.00 177.00 FIRST SDI MWD SURFACE SURVEY -0.09 0.05 0.84 0.38 -65.77 268.00 0.88 54.43 267.99 1.66 362.00 40.19 361.97 -15.15 1.41 1.22 2.99 1.46 0.64 0.56 457.00 2.20 354.58 456.93 3.93 3.58 4.21 1.66 0.83 -48.01 550.00 4.04 351.41 549.79 8.94 2.92 9.16 1.99 1.98 -3.41 646.00 6.01 6.56 645.42 17.28 2.99 17.47 2.46 2.05 15.78 741.00 8.10 13.40 739.70 28.73 5.11 29.06 2.37 2.20 7.20



Scientific Drilling

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

TVD Reference: GL 5118 & KB 18 @ 5136.00ft (SST 57)

MD Reference: GL 5118 & KB 18 @ 5136.00ft (SST 57)

Well NBU 1022-3L1BS

North Reference: Tru

Survey Calculation Method: Minimum Curvature

Database: Denver Sales Office

₽Y									
J									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
835.00	10.02	12.24	832.52	43.17	8.38	43.72	2.05	2.04	-1.23
928.00	12.40	6.97	923.74	60.99	11.30	61.72	2.78	2.56	-5.67
1,022.00	14.42	4.59	1,015.17	82.68	13.46	83.52	2.23	2.15	-2.53
1,116.00	15.52	3.09	1,105.98	106.90	15.08	107.79	1.24	1.17	-1.60
1,209.00	16.09	2.57	1,195.47	132.20	16.33	133.10	0.63	0.61	-0.56
1,304.00	14.74	4.19	1,287.05	157.41	17.80	158.35	1.49	-1.42	1.71
1,398.00	14.96	4.45	1,377.91	181.43	19.62	182.44	0.24	0.23	0.28
1,490.00	15.30	3.54	1,466.72	205.38	21.29	206.45	0.45	0.37	-0.99
1,585.00	14.42	1.08	1,558.54	229.72	22.28	230.78	1.14	-0.93	-2.59
1,679.00	13.63	2.49	1,649.74	252.49	22.99	253.53	0.92	-0.84	1.50
1,773.00	13.28	2.05	1,741.16	274.34	23.85	275.38	0.39	-0.37	-0.47
1,866.00	12.48	1.71	1,831.82	295.06	24.53	296.08	0.86	-0.86	-0.37
1,961.00	12.40	3.01	1,924.59	315.51	25.38	316.52	0.31	-0.08	1.37
2,056.00	12.31	6.00	2,017.39	335.77	26.97	336.84	0.68	-0.09	3.15
2,151.00	13.28	8.37	2,110.03	356.63	29.62	357.86	1.16	1.02	2.49
2,243.00	14.42	7.58	2,199.35	378.44	32.67	379.85	1.26	1.24	-0.86
2,337.00	16.27	4.42	2,290.00	403.18	35.23	404.71	2.16	1.97	-3.36
2,429.00	15.56	1.69	2,378.47	428.36	36.58	429.92	1.12	-0.77	-2.97
2,462.00	14.25	1.52	2,410.36	436.84	36.82	438.39	3.97	-3.97	-0.52
	WD SURFACE S								
2,491.00	13.72	1.08	2,438.50	443.85	36.98	445.39	1.87	-1.84	-1.52
8 5/8"									
2,586.00	11.98	359.37	2,531.12	464.97	37.08	466.45	1.87	-1.83	-1.80
FIRST SDI N	IWD PRODUCTION	ON SURVEY							
2,681.00	10.46	357.99	2,624.30	483.45	36.67	484.82	1.62	-1.60	-1.45
2,776.00	10.55	357.46	2,717.71	500.76	35.99	502.01	0.14	0.09	-0.56
2,871.00	10.64	0.36	2,811.09	518.22	35.66	519.38	0.57	0.09	3.05
2,966.00	9.67	3.44	2,904.60	534.95	36.19	536.10	1.17	-1.02	3.24
3,060.00	8.35	1.24	2,997.44	549.66	36.81	550.81	1.45	-1.40	-2.34
3,156.00	7.12	5.55	3,092.57	562.55	37.54	563.71	1.42	-1.28	4.49
3,251.00	5.29	9.35	3,187.01	572.73	38.82	573.97	1.97	-1.93	4.00
3,346.00	3.90	15.62	3,281.70	580.16	40.40	581.51	1.55	-1.46	6.60
3,441.00	2.46	38.59	3,376.55	584.87	42.54	586.37	2.00	-1.52	24.18
3,536.00	1.31	105.40	3,471.51	586.17	44.86	587.87	2.41	-1.21	70.33
3,631.00	0.95	113.03	3,566.49	585.58	46.63	587.42	0.41	-0.38	8.03
3,726.00	1.03	140.09	3,661.48	584.61	47.90	586.57	0.49	0.08	28.48
3,821.00	1.49	151.80	3,756.45	582.87	49.04	584.93	0.55	0.48	12.33
3,916.00	1.93	152.50	3,851.41	580.36	50.36	582.54	0.46	0.46	0.74
4,011.00	0.95	154.95	3,946.38	578.23	51.43	580.51	1.03	-1.03	2.58
4,106.00	1.06	155.22	4,041.37	576.72	52.13	579.06	0.12	0.12	0.28
4,201.00	0.17	157.16	4,136.36	575.79	52.56	578.17	0.94	-0.94	2.04
4,296.00	0.17	167.77	4,231.36	574.97	52.76	577.37	0.73	0.73	11.17
	0.64	164.68	4,326.35	573.76	53.05	576.19	0.73	-0.23	-3.25
4,391.00	11 n4								



Scientific Drilling

Survey Report



Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 NBU 1022-3L PAD

 Well:
 NBU 1022-3L1BS

Wellbore: OH
Design: OH

Local Co-ordinate Reference:

 TVD Reference:
 GL 5118 & KB 18 @ 5136.00ft (SST 57)

 MD Reference:
 GL 5118 & KB 18 @ 5136.00ft (SST 57)

Well NBU 1022-3L1BS

North Reference: Tru

Survey Calculation Method: Minimum Curvature

Database: Denver Sales Office

Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
4,581.00	0.31	272.43	4,516.34	571.95	52.96	574.37	0.91	-0.51	98.58
4,677.00	0.53	196.36	4,612.33	571.53	52.58	573.93	0.57	0.23	-79.24
4,771.00	0.70	189.68	4,706.33	570.55	52.36	572.93	0.20	0.18	-7.11
4,867.00	0.88	177.64	4,802.32	569.23	52.29	571.61	0.25	0.19	-12.54
4,962.00	0.70	200.49	4,897.31	567.96	52.12	570.33	0.38	-0.19	24.05
5,057.00	0.67	168.69	4,992.30	566.87	52.02	569.24	0.40	-0.03	-33.47
5,151.00	1.41	169.29	5,086.29	565.20	52.35	567.60	0.79	0.79	0.64
5,246.00	1.06	170.87	5,181.27	563.18	52.70	565.62	0.37	-0.37	1.66
5,341.00	1.06	227.47	5,276.25	561.72	52.20	564.12	1.06	0.00	59.58
5,436.00	1.32	322.30	5,371.24	561.99	50.88	564.28	1.85	0.27	99.82
5,531.00	1.93	330.21	5,466.20	564.25	49.42	566.40	0.68	0.64	8.33
5,626.00	1.23	346.74	5,561.16	566.63	48.39	568.69	0.87	-0.74	17.40
5,721.00	1.10	3.24	5,656.14	568.53	48.20	570.57	0.38	-0.14	17.37
5,816.00	0.88	15.13	5,751.13	570.14	48.45	572.20	0.32	-0.23	12.52
5,910.00	0.62	31.03	5,845.12	571.28	48.90	573.36	0.35	-0.28	16.91
6,005.00	1.06	32.62	5,940.11	572.46	49.64	574.60	0.46	0.46	1.67
6,099.00	0.62	11.96	6,034.10	573.69	50.21	575.88	0.56	-0.47	-21.98
6,194.00	0.65	52.83	6,129.10	574.52	50.75	576.75	0.47	0.03	43.02
6,289.00	0.31	40.22	6,224.09	575.04	51.34	577.32	0.37	-0.36	-13.27
6,384.00	0.97	100.38	6,319.09	575.09	52.30	577.45	0.90	0.69	63.33
6,479.00	0.35	110.93	6,414.08	574.84	53.36	577.29	0.66	-0.65	11.11
6,574.00	0.67	204.33	6,509.08	574.23	53.40	576.69	0.81	0.34	98.32
6,671.00	0.85	183.44	6,606.07	573.00	53.13	575.43	0.34	0.19	-21.54
6,765.00	0.97	195.30	6,700.06	571.53	52.87	573.95	0.24	0.13	12.62
6,860.00	0.62	193.46	6,795.05	570.26	52.54	572.65	0.37	-0.37	-1.94
6,955.00	0.87	159.21	6,890.04	569.08	52.68	571.50	0.53	0.26	-36.05
7,051.00	0.87	131.43	6,986.03	567.92	53.48	570.40	0.44	0.00	-28.94
7,146.00	1.28	154.87	7,081.01	566.48	54.47	569.05	0.62	0.43	24.67
7,241.00	0.97	160.59	7,176.00	564.76	55.19	567.40	0.35	-0.33	6.02
7,336.00	0.97	165.42	7,270.98	563.23	55.66	565.91	0.09	0.00	5.08
7,431.00	0.88	202.69	7,365.97	561.77	55.58	564.46	0.63	-0.09	39.23
7,527.00	0.44	206.82	7,461.96	560.76	55.13	563.41	0.46	-0.46	4.30
7,622.00	0.70	190.25	7,556.96	559.87	54.86	562.50	0.32	0.27	-17.44
7,717.00	0.85	181.16	7,651.95	558.59	54.75	561.22	0.20	0.16	-9.57
7,811.00	0.53	163.13	7,745.94	557.48	54.86	560.12	0.41	-0.34	-19.18
7,907.00	0.53	6.51	7,841.94	557.50	55.04	560.15	1.08	0.00	-163.15
8,002.00	0.14	84.19	7,936.94	557.94	55.20	560.61	0.55	-0.41	81.77
8,097.00	0.26	100.73	8,031.94	557.92	55.53	560.61	0.14	0.13	17.41
8,193.00	0.62	89.04	8,127.94	557.88	56.26	560.64	0.38	0.13	-12.18
8,287.00	0.53	133.60	8,221.93	557.59	57.09	560.42	0.47	-0.10	47.40
8,382.00	0.53	133.34	8,316.93	556.99	57.73	559.87	0.00	0.00	-0.27
8,478.00	0.97	146.26	8,412.92	556.01	58.50	558.96	0.49	0.46	13.46
8,572.00	1.61	130.35	8,506.90	554.49	59.95	557.57	0.49	0.40	-16.93



Scientific Drilling

Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: NBU 1022-3L PAD

Wellbore: Design:

NBU 1022-3L1BS ОН

ОН

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Well NBU 1022-3L1BS

GL 5118 & KB 18 @ 5136.00ft (SST 57)

GL 5118 & KB 18 @ 5136.00ft (SST 57)

Minimum Curvature

Survey Calculation Method: Denver Sales Office Database:

asured									
epth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,668.00	1.85	129.38	8,602.85	552.63	62.17	555.90	0.25	0.25	-1.01
8,763.00	2.02	119.10	8,697.80	550.85	64.82	554.35	0.41	0.18	-10.82
8,858.00	2.29	127.55	8,792.73	548.88	67.79	552.63	0.44	0.28	8.89
8,906.00	2.29	128.07	8,840.69	547.70	69.30	551.59	0.04	0.00	1.08
ST SDI MV	VD PRODUCTIO	N SURVEY							
8,961.00	2.29	128.07	8,895.65	546.35	71.03	550.38	0.00	0.00	0.00
I PROJEC	TION TO TD								
88888888	8,668.00 8,763.00 8,858.00 8,906.00 ST SDI MW	8,668.00 1.85 8,763.00 2.02 8,858.00 2.29 8,906.00 2.29 ST SDI MWD PRODUCTIO	8,668.00 1.85 129.38 8,763.00 2.02 119.10 8,858.00 2.29 127.55 8,906.00 2.29 128.07 ST SDI MWD PRODUCTION SURVEY 9,961.00 2.29 128.07	8,668.00 1.85 129.38 8,602.85 8,763.00 2.02 119.10 8,697.80 8,858.00 2.29 127.55 8,792.73 8,906.00 2.29 128.07 8,840.69 ST SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65	8,668.00 1.85 129.38 8,602.85 552.63 8,763.00 2.02 119.10 8,697.80 550.85 8,858.00 2.29 127.55 8,792.73 548.88 8,906.00 2.29 128.07 8,840.69 547.70 ST SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65 546.35	8,668.00 1.85 129.38 8,602.85 552.63 62.17 8,763.00 2.02 119.10 8,697.80 550.85 64.82 8,858.00 2.29 127.55 8,792.73 548.88 67.79 8,906.00 2.29 128.07 8,840.69 547.70 69.30 ST SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65 546.35 71.03	8,668.00 1.85 129.38 8,602.85 552.63 62.17 555.90 8,763.00 2.02 119.10 8,697.80 550.85 64.82 554.35 8,858.00 2.29 127.55 8,792.73 548.88 67.79 552.63 8,906.00 2.29 128.07 8,840.69 547.70 69.30 551.59 8T SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65 546.35 71.03 550.38	8,668.00 1.85 129.38 8,602.85 552.63 62.17 555.90 0.25 8,763.00 2.02 119.10 8,697.80 550.85 64.82 554.35 0.41 8,858.00 2.29 127.55 8,792.73 548.88 67.79 552.63 0.44 8,906.00 2.29 128.07 8,840.69 547.70 69.30 551.59 0.04 ST SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65 546.35 71.03 550.38 0.00	8,668.00 1.85 129.38 8,602.85 552.63 62.17 555.90 0.25 0.25 8,763.00 2.02 119.10 8,697.80 550.85 64.82 554.35 0.41 0.18 8,858.00 2.29 127.55 8,792.73 548.88 67.79 552.63 0.44 0.28 8,906.00 2.29 128.07 8,840.69 547.70 69.30 551.59 0.04 0.00 ST SDI MWD PRODUCTION SURVEY 8,961.00 2.29 128.07 8,895.65 546.35 71.03 550.38 0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_NBU 1022-3L1BS - actual wellpath mis - Circle (radius 25.00	ses target cen	0.00 ter by 13.41	8,880.00 ft at 8944.82	557.25 ft MD (8879.4	62.21 8 TVD, 546.7	14,521,917.88 4 N, 70.53 E)	2,079,580.29	39.9780660	-109.4324210

Casing Points						
	Measured	Vertical		Casing	Hole	
	Depth	Depth		Diameter	Diameter	
	(ft)	(ft)	Name	(in)	(in)	
	2,491.00	2,438.50 8 5/8"		8.625	11.000	

Design Annotations				
Measure	d Vertical	Local Co	ordinates	
Depth (ft)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
177	.00 177.00	-0.32	0.71	FIRST SDI MWD SURFACE SURVEY
2,462	.00 2,410.36	436.84	36.82	LAST SDI MWD SURFACE SURVEY
2,586	.00 2,531.12	464.97	37.08	FIRST SDI MWD PRODUCTION SURVEY
8,906	.00 8,840.69	547.70	69.30	LAST SDI MWD PRODUCTION SURVEY
8,961	.00 8,895.65	546.35	71.03	SDI PROJECTION TO TD

Checked By:	Approved By:	Date: